GUIDELINE OF DEVELOPMENT, IMPLEMENTATION, AND EVALUATION OF CURRICULUM

Direktorat Akademik
Universitas Negeri Surabaya
2023

UNESA CURRICULUM DEVELOPMENT, IMPLEMENTATION, AND EVALUATION GUIDELINES

Ministry of Education,Culture, Research and Technology

Surabaya State University 2023

COMPILATION TEAM

The Team for Preparing Guidelines for Development, Implementation and Evaluation of the 2023 Surabaya State University Curriculum is as follows:

A. Steering Commitee	1. Prof. Dr. Nur Hasan, M. Kes. 2. Prof. Dr. Madlazim, M.Sc.
B. Person in Charge	Prof. Dr. Fida Rachmadiarti, M. Kes.
C. Chairman	Dr. Muji Sri Prastiwi, M.Pd.
D. Secretary	Enny Susiyawati, Ph.D.
E. Members	1. Dr. Wahono Widodo, M.Sc. (Postgraduate) 2. Dhiah Fitrayati, S, Pd.,ME (FEB) 3. Rudianto Artiono, M.Sc. (FMIPA) 4. Pradini Puspitaningayu, ST, MT., PhD. (FT) 5. Dra. Ita Mardiani Zain, M. Kes. (FISH) 6. Dr. Ratna Suhartini, M.Sc. (FVocation) 7. Dr. Imam Marsudi M.Si (FIKK) 8. Dr. Fafi Inayatillah, M.Pd. (FBS) 9. Dr. Fajar Arianto, M.Pd. (FIP) 10. Dr. Febrita Ardianingsih, M.Si. (FK)

FOREWORD

Praise be to Allah Almighty so that 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, Presidential Decree Number 8 of 2012. 2012 concerning the Indonesian National Qualifications Framework (KKNI), and Minister of Education and Culture Regulation Number 3 of 2020 concerning National Higher Education Standards (SN-Dikti). In addition, this guide also considers the Free Learning Curriculum Development Guidelines - Independent Campus, the concept of Outcome-Based Education (OBE), and the core components of Education 4.0. The preparation of these guidelines also aligns UNESA's vision and mission as a Legal Entity State University (PTNBH).

This guideline consists of 5 (five) main parts. First, the Introduction discusses the background, objectives, benefits, and the basis for curriculum development. Second, the theoretical 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 developing study program (prodi) curricula. Fourth, Curriculum Implementation contains discussions regarding approaches, strategies, learning resources and learning media, assessment of learning processes and outcomes, and Semester Learning Plans (RPS). Fifth, Curriculum Evaluation describes the principles, approaches and models of curriculum evaluation. Finally, Governance describes the parties responsible for developing, implementing and evaluating the curriculum as well as the process of monitoring and assessing the curriculum that has been implemented.

Important aspects that each study program needs to pay attention to in development the curriculum. It is an obligation to develop student character in accordance with 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 special skills which is 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 provide benefits for all related parties. Constructive criticism and suggestions are always welcome to improve this academic manuscript in the next edition. Thank You.

Vice Rector of Academic, Student and Alumni Affairs

Prof. Dr. Madlazim, M.Sc.

PREFACE

The successful implementation of each program is determined, among other things, by good planning. Likewise with the educational programs implemented at UNESA. A form of planning a good educational program is providing relevant learning experiences, according to the needs of stakeholders, current developments, and being able to empower students completely (comprehensively) so that they become competitive individuals and with character. Therefore, curriculum review and development needs to always be carried out by every study program at UNESA. For this reason, updating guidelines related to the curriculum needs to be carried out so that it can be used as a basis and direction for study programs in developing, implementing and evaluating the curriculum.

UNESA as a PTNBH institution has a curriculum as a plan and arrangement regarding objectives, content and learning materials, as well as methods used as guidelines for organizing learning activities to achieve educational goals. The curriculum as a direction and development goal has dynamics in efforts to achieve the expected goals. This dynamic is a consequence of societal development which must be able to be accommodated.

Curriculum development requires a guideline as a direction and foundation so that the curriculum development, implementation and evaluation process is carried out in line with the overall national education system, vision andUNESA's mission, as well as in accordance with the demands of community life that must be accommodated. This guideline is useful as follows: 1) guidance in developing study program curricula, 2) quality assurance services in curriculum evaluation, 3) basic academic justification in the process of curriculum development, implementation and evaluation, and 4) reference 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.

LIST OF CONTENTS

PAGE i
COMPILATION TEAM ii
INTRODUCTION ii
RECTOR GREETING iv
LIST OF CONTENTS v
LIST OF FIGURES vii
LIST OF TABLES viii
INTRODUCTION 1
A. Background 1
B. Purpose of Development, Implementation and Evaluation GuidelinesCurriculum 1
C. Benefits of Development, Implementation and Evaluation GuidelinesCurriculum 2
D. Regulation 2
E. Definition Terms 4
F. Limitations 7

CHAPTER II CONTEXT STUDY CURRICULUM 8
A. Development Studies Curriculum 8
1. Vision, Mission and Goals UNESA 8
2. Scientific Vision of Study Program 10
3. Qualification Requirements Work 10
4. The Needs of Society 11
5. Development of Science, Technology and Arts(Science and Technology) 18
B. Development Curriculum Foundation 18
1. Philosophical 18
2. Sociological 19
3. Psychological 19
4. Historical 20
5. Juridical 21
C. Development PrinciplesCurriculum 22
1. Relevance 22
2. Flexibility 22
3. Continuity 23
4. Efficiency 23
5. Effectiveness 23

CHAPTER III CURRICULUM DEVELOPMENT OF PROGRAM 24
A. Study Program Curriculum Components 25
B. Study Program Curriculum Content 28
1. Learning Outcomes and Curriculum Structure Study Program 37
Academic Track 37
2. Education Profession 50
C. UNESA Curriculum Development Based on KKNI, OBE Oriented,Education 4.0, SDGs, and Emancipatory Learning 52
D. Stages of Curriculum Development 54
1. Introduction 55
2. New Curriculum Design New 58

3. *Sanctioning the New Curriculum ThroughWorkshops* 58
4. New Public Test/Curriculum Publication 59
5. New Curriculum Implementation 59

CHAPTER IV CURRICULUM IMPLEMENTATION 61
A. Learning Form and Method Learning 61
1. Learning Approach 62
Mutual Cooperation/Collaborative Approach 63
2. Scientific Approach 64
3. Humanity Approach 65
B. Learning Resources and Learning Media 67
1. Media Selection 69
2. Stages of Media DevelopmentLearning 70
3) Media Benefit in Process Learning 72
C. Process and Outcome Assessment 72
1. Academic Evaluation 74
2. Non-academic Evaluation 81
D. Semester Learning Plan(RPS) 83
1. Understanding of RPS 83
2. Development Principles RPS 84
3. Components of RPS 85
Development Steps of RPS 88
4. Format of RPS 96

CHAPTER V CURRICULUM EVALUATION 97
A. Evaluation Objectives of Curriculum 97
B. Evaluation Model of Curriculum 97
C. Evaluation Type of Curriculum 98
1. Partial Curriculum Evaluation (EvaluationFormative) 98
2. Comprehensive Curriculum Evaluation (EvaluationSummative) 99

CHAPTER VI GOVERNANCE 100
A. Implementation of Curriculum 100
1. Related Party Roles 100
2. Coordination andManagement 101
3. Enforcement 102

B. Auditing of Curriculum 102
1. Principle 102
2. Criteria 102
3. Operationalization 103

CHAPTER VII CONCLUSION 104
BIBLIOGRAPHY LIST 105

LIST OF FIGURES

Figure 2.1. 21-st Century Learning Framework 13
Figure 2.2. Seventeen Sustainable Development Goals 14
Figure 2.3. Core Components of Higher Education 4.0 16
Figure 2.4. Forms of activity Emancipatory Learning 17
Figure 2.5. Aspects underlying Curriculum Development of UNESA 21
Figure 2.6. Principles in Curriculum Development of UNESA 22
Figure 3.1. Curriculum Development Guidelines Diagram of UNESA 54
Figure 3.2. Study Program Curriculum Development Procedures of UNESA 55
Figure 4.1. Activities in Learning Collaboration 64
Figure 4.2. Dimensions of Human within Humanistic 66
Figure 4.3. Assessment Position in Learning 73
Figure 4.4. Implementation Mechanism Evaluation 77
Figure 5.1. Discrepancy Models for Curriculum Evaluation of Program 98

LIST OF TABLES

Table 3.1. UNESA Characteristics Study Materials and Their Packaging Courses 29
Table 3.2. Institutional Elective courses 30
Table 3.3 Learning Achievements of Undergraduate Education 38
Table 3.4. Educational and Learning Study Materials Inwards Courses 38
Table 3.5. Basic Framework of Undergraduate Education Curriculum 39
Table 3.6. Basic Framework of Undergraduate Non-educational Curriculum 41
Table3.7. Basic Framework for the Diploma or Undergraduate Applied Program.....42
Table 3.8. Program Learning Outcomes of Graduate Degree 44
Table 3.9. Basic Framework of Master's Education Curriculum 44
Table 3.10. Basic Framework of Master's Non-educational Curriculum.....45
Table 3.11. Program Learning Outcomes Doctoral Level Study Program of UNESA 47
Table 3.12. Basic Framework for the Doctoral Education Curriculum of UNESA..... 47
Table 3.13. Basic Curriculum Framework for Non-Educational Doctoral Study Programs of UNESA.....48
Table 4.1. Basic Categories of Learning Media.....69
Table 4.2. Letter Values, Intervals, and Number Values are applicable in UNESA 79
Table 4.3. IP Range and Number of Credits Obtainable Taken by Students 79
Table 4.4. Provisions for Study Load, Study Period, and GPA for Graduation Student..... 80
Table 4.5. GPA Range and Graduation PredicateProgram 81
Table 4.6. Definition of 1 credit based on Learning Form.....88
Table 4.7. Program Learning Outcomes charged to Research Methodology Course.....89
Table 4.8. Course Learning Outcome formulation in Research Methodology Course.....89
Table 4.9. Formulation of Sub-CLO in Research Methodology Course 90
.....
Table 4.10. Example of Sub-CLO Assessment Indicator Formulation in Methodology Course 91
Table 4.11. Example of Selection of Study Materials based on the Formulation of Assessment Indicators in the MK Research Methodology 91
Table 4.12. Example of Lecture Activity Formulation in Research Methodology Course 93
Table 4.13. Example of Follow up Plan in Research Methodology Course 94
Table 4.14. Indicators, Strategies, Forms and Examples Assessment.....96

CHAPTER I INTRODUCTION

A. Background

Based on Republic of Indonesia Government Regulation Number 37 of 2022, UNESA has transformed into PTNBH. This change in status is balanced with changes in UNESA's vision, mission and goals, so that it has an impact on the study program curriculum (Prodi). These curriculum changes were made in line with changes in UNESA's vision.

UNESA PTNBH's vision is to become a "resilient, adaptive and innovative educational university based on entrepreneurship" requires the existence of a new curriculum to achieve this vision in the field of education. For this reason, there needs to be curriculum adjustments that are in line with this vision. The UNESA PTNBH curriculum is directed at preparing a generation of lifelong, sustainable and timeless learners by utilizing digital transformation. This curriculum development is a process to answer the emerging needs and challenges that students will face in the future.

At the moment, Study programs around UNESA have an adaptive curriculum oriented towards KKNI, SN-DIKTI, and Emancipatory Learning. In fact, several study programs have been accredited nationally and internationally. However, several curriculum adjustments according to the latest vision have not been fully accommodated in the previous guidelines. Thus new guidelines are needed.

B. Development, Implementation, and Guidelines Objectives Curriculum Evaluation

In general, the objectives of this Curriculum Development, Implementation and Evaluation Guide are as follows:

1. serve as a guide for UNESA in internalizing higher education quality standards;
2. serve as a guide for universities, faculties and study programs in developing and implementing a curriculum based on learning outcomes that is oriented towards UNESA PTNBH policies;
3. explains the review mechanism, curriculum changes and curriculum evaluation based on learning outcomes oriented to UNESA PTNBH policy;
4. reflects UNESA's commitment to continuous quality improvement, especially in curriculum and learning achieving the Vision and Mission of UNESA PTNBH.

C. Benefits of Development, Implementation, and GuidelinesCurriculum Evaluation

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, it is an experience that must be lived out in carrying out academic and non-academic activities (self-development) to achieve their goals and realize their life hopes.
2. For lecturers, as a guide in carrying out professional duties aseducators to create graduate

profiles in accordance with the vision and mission.

3. For institutions, as a direction for carrying out tasks and managerial duties in accommodating institutional activities to achieve the vision and mission.
4. For society, as accountability for development demands
   science and technology as well as accommodating the needs of society for its welfare.
5. For the nation and state, as proof of commitment to achieving national development goals.

D. Juridical Foundation

These 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 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 State Gazette of the Republic of Indonesia Number 5336);
5. Republic of Indonesia government regulation 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 the Implementation of Higher Education and Management of Higher Education;
7. Government regulations Republic of Indonesia No. 37Year2022 about State University, Legal Entity, State University of Surabaya;
8. Regulations of the President of the Republic Indonesia Number 8In 2012, regarding the Indonesian National Qualifications Framework (KKNI);
9. Regulation of the Minister of Education and Culture of the Republic of Indonesia
10. Number 73 2013, concerning the Implementation of KKNI in the Higher Education Sector;
11. 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;
12. 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;
13. 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;

14. Minister of Education and Culture Regulation no. 3 of 2020, concerning National Higher Education Standards;
15. Minister of Education and Culture Regulation no. 5 of 2020, concerning Accreditation of Study Programs and Higher Education Institutions;
16. Minister of Education and Culture Regulation no. 7 of 2020 concerning Establishment of Changes, Dissolution of State Universities, and Establishment, Changes, Revocation of Licenses for Private Universities;
17. Minister of Education, Culture, Research and Technology Regulation no. 13 of 2022 concerning Amendments to 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;
18. Minister of Education and Culture Regulation no. 23 of 2015 concerningCultivation of Character;
19. Surabaya State University Rector's Regulation No. 55 of 2022 concerning Curriculum Development and Curriculum Evaluation at Surabaya State University;
20. Strategic Plan of the Ministry of Education, Culture, Research and Technology 2020-2024;
21. Surabaya State University PTNBH Strategic Plan (Renstra) 2020-2025;
22. PlanaLong Term Development (RPJP) of Surabaya State University 2022-2045;
23. Postgraduate Program Strategic Plan and Faculty Strategic Plan around UNESA.

E. Definition of Terms

The following are the terms used in this Curriculum Development, Implementation and Evaluation Guide.

1. The curriculum is a set of plans and arrangements regarding objectives, content and learning materials as well as methods used as guidelines for implementing learning activities to achieve the goals of Higher Education.
2. Higher Education is the level of education after secondary education which includes diploma programs, bachelor's programs, master's programs, doctoral programs, and professional programs, as well as specialist programs, which are organized by universities based on Indonesian culture.
3. Compulsory Courses The National Curriculum must contain courses
   a. Religion;
   b. Pancasila;
   c. Citizenship; And
   d. Indonesian.
4. Learning is the process of student interaction with lecturers and learning resources in a

learning environment.

5. A Study Program (Prodi) is a unit of educational and learning activities that has a specific curriculum and learning methods in one type of academic education, professional education, and/or vocational education.
6. Graduate Profile is a characteristic or role that graduates can carry out in a particular field of expertise or work after completing their studies.
7. *Educational Program Objectives*(PEO) is a general statement that describes what graduates are expected to achieve in the years after graduating. PEO is based on needs and predictions of future capabilities.
8. Learning Outcomes are abilities obtained through internalization of knowledge, attitudes, skills, competencies and accumulated work experience (Presidential Decree No. 8 of 2012 concerning the Indonesian National Qualifications Framework).
9. Graduate Competency Standards (SKL) are the minimum criteria egarding the qualifications of graduates' abilities which include attitudes, nowledge and skills stated in the Achievements formula Learning Graduate (PLO).
10. Study materials (subject matters) contain knowledge from certain scientific disciplines or knowledge studied by students and can be demonstrated by students.
11. Learning material is in the form of knowledge (facts, concepts, principles, theories, and definitions), skills, and processes (reading, writing, counting, dancing, critical thinking, communicating, etc.), and values.
12. A course is a unit of study taught and studied by students at the tertiary level which is structured based on the PLO assigned to them, contains learning material, learning forms and methods, and assessments, and has a minimum weight of one semester credit unit (sks).
13. The Semester Learning Plan (RPS) for a course is a learning process plan prepared for learning activities during one semester to meet the Program Learning Outcomes assigned to the course. Semester learning plans or other terms, are determined and developed by lecturers independently or together in expertise groups in a field of science and/or technology in the study program.
14. Learning Assessment Standards are minimum criteria for assessing student learning processes and outcomes in order to fulfill graduate learning outcomes.
15. Learning experience is a student's learning activity through interaction with external conditions in their learning environment.
16. Form of learning is that learning activities can take the form of lectures; responses and tutorials; seminar; and practicum, studio practice, workshop practice, field practice; work practices, research, design, or development; military training, student exchange, internship, entrepreneurship, and/or other forms of community service.
17. Learning Methods are the methods used to realize learning strategies using them optimally,

perhaps learning resources, including learning media.

18. Assessment is one or more processes of identifying, collecting, and preparing data to evaluate achievement, PLO, and curriculum objectives.
19. Learning Evaluation is one or more processes of interpreting data and evidence accumulated during the assessment process.
20. Curriculum Evaluation is a process or series of data and information collection regarding a curriculum, the results of which are then analyzed and used as a basis for improving curriculum performance to make it more optimal and effective (formative evaluation), or used as a basis for concluding and making decisions (summative evaluation) .
21. Assessment criteria are benchmarks used as a measure or reference for learning achievement in assessments based on predetermined indicators. Assessment criteria are guidelines for assessors so that assessments are consistent and unbiased.
22. Assessment Indicators are specific and measurable statements that identify the achievement of learning outcomes or performance of student learning outcomes accompanied by evidence.
23. Data Literacy is an understanding of reading, analyzing, using data and information (big data) in the digital world.
24. Technological Literacy is understanding how machines and applications work technology (coding, artificial intelligence, and engineering principles).
25. Human Literacy is an understanding of humanity and culture, communication, and design.
26. Forms of Learning Activities (BKP) MBKM are learning activities outside the study program that students can participate in for a maximum of three semesters both inside and outside their tertiary institution, consisting of 9 (nine) forms, in the form of student exchanges, internships/work practices, assistance teaching in education units, research/research, humanitarian projects, entrepreneurial activities, independent studies/projects, building villages/thematic real work lectures, and defending the country.
27. The Learning Management System (LMS) is a system used to carry out the learning process by utilizing Information and Communication Technology (ICT) and is the result of systematic integration of learning components by paying attention to quality, learning resources and characteristics. learning interactions (engagement) across time and space. An important goal of the LMS is to provide access and facilities for students to build their knowledge independently and with direction, as well as providing the important role of lecturers as designers, initiators, facilitators and motivators of learning.
28. Blended learning is a learning approach that combines in a harmonious, structured and systematic manner the advantages of face-to-face and online learning.
29. Curriculum Audit is an activity intended to carry outassessment of the study program

curriculum as a whole.

F. Limitation

This guideline regulates related specific matters with the development, implementation and evaluation of the UNESA curriculum. For more detailed matters related to curriculum development, implementation, and evaluation, refer to the Guide to Preparing Higher Education Curriculum in the Industrial Era 4.0 for supporting Emancipatory Learning-Independent Campus linkhttps://dikti.kemdikbud.go.id/wp-content/uploads/2020/10/BUKU-PANDUAN-PREPARATION OF HIGHER-EDUCATION-MBKM-CURRICULUM.pdf and The Guidelien of Emancipatory Learning- Independent Campus that available at: https://dikti.kemdikbud.go.id/wp-content/uploads/2020/04/Buku-Panduan- Merdeka-Learn-Independent-Campus-2020.

CHAPTER II CURRICULUM CONTEXT ASSESSMENT

A. Curriculum Development Study

Curriculum development is a process to answer emerging needs and challenges that will be faced in the future. Studies regarding curriculum development are needed to provide direction for the curriculum that is developed to suit community 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 Republic of Indonesia Government Regulation Number 37 of the Year2022 concerning State Universities, Legal Entities, Surabaya State University, UNESA's vision is to become a "resilient, adaptive and innovative educational university based on entrepreneurship". The explanation of UNESA's vision is as follows:

1) The university is UNESA which provides academic, vocational and professional education in various disciplines based on entrepreneurship and character;
2) A teaching university means that UNESA is a university whose main focus is educating students to become successful individuals after graduating;
3) Resilient means that UNESA is able to face various challenges in accordance with developments in science and technology;
4) Adaptive means that UNESA has human resources and graduates who are able to adapt to various changes and developments in science and technology;
5) Innovative means that UNESA has human resources and graduates who have the ability to think to create new knowledge and technology.
6) Entrepreneurship means that UNESA is able to develop creativity and innovation to create change by exploiting opportunities and resources to produce added value.

In line with this vision, UNESA's mission is as follows:

1) providing education in the educational and non-educational fields with a tough, adaptive and innovative character based on entrepreneurship;
2) carrying out research and improving the quality of innovation in the educational and non-educational fields based on entrepreneurship;
3) carry out community service and disseminate innovation in the educational and non-educational fields based on entrepreneurship for the welfare of society;
4) implementing the tridharma of higher education through a multicampus 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 guarantees quality on an ongoing basis; and
6) organize productive national and international cooperation in creating, developing and disseminating innovations in the educational and non-educational fields based on

entrepreneurship.

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 power, high competitiveness, innovation and an entrepreneurial spirit;
2) produce and improve the quality of innovation in the educational and non-educational fields based on entrepreneurship;
3) disseminate innovation in the educational and non-educational fields based on entrepreneurship;
4) produce scientific works in the implementation of the tridharma of superior, quality and innovative higher education 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 institutions and institutions internationally in creating, developing and disseminating innovations in the educational and non-educational fields based on entrepreneurship.

Vision is the direction in the development of an institution, while mission is the task carried out to achieve that vision. Meanwhile, goals are achievements that are sought to realize the mission. Achievement education, this must be implemented in all activities carried out both academic and non-academic. Thus, the curriculum designed and developed must aim at achieving the vision and implementing the mission.

Curriculum developed to achieve vision, carry out mission, andAchieving the goal must fully accommodate educational objectives by taking into account the characteristics of UNESA as a local learning setting. This is a background demand for curriculum development.

2. Study Program's Scientific Vision

Apart from achieving the institutional vision at the university and faculty level, curriculum development at UNESA is also carried out by paying attention to the achievement of the scientific vision that has been developed by each study program. This scientific vision is the study program's ideals in studying and developing certain knowledge that characterizes the study program's field of expertise in order to respond to the development of science and technology and its application for the benefit of society in order to improve the quality of life of the people within it, both individually and collectively. Each study program in each scientific field at UNESA has certain characteristics in accordance with the ideals, uniqueness of the institution, the development of science and technology and its application to improve the quality of life of society.

For example, the scientific vision of a Biology Education Study Program is: "Developing biology education and learning that is in line with the principles of transformative learning based on local potential and wisdom" (Independent Accreditation Institute for Education, 2022). Based on this scientific vision, this study program aspires to develop student-centered biology education

and learning using transformative learning principles that are active, effective, innovative and optimize the use of technology based on existing potential and local wisdom to improve the quality of life of the community.

3. Job Qualification Requirements

Curriculum development at UNESA also takes into account the demands of work qualifications mandated through Presidential Decree No. 08 of 2012 concerning the Indonesian National Qualifications Framework (KKNI). This Presidential Decree is a reference in preparing the learning outcomes of each graduate 2012 and Higher Education Law no. 12 of 2012 article 29 paragraphs (1), (2), and (3), curriculum preparation and management of higher education institutions in eachThe study programs at UNESA will lead to work qualification needs that are based on learning outcomes.

Curriculum development according to work qualification needs will change the way of looking at a person's competence, no longer through the certificate or diploma obtained but by looking at the nationally agreed qualification framework as a basis for recognizing a person's educational results in a broad manner that is accountable and transparent. Apart from that, in Presidential Decree no. 08 of 2012 also states that this qualifications framework allows for the recognition and equalization of qualifications in the KKNI with the qualifications framework of other countries or vice versa, both bilaterally and multilaterally, which is carried out on the basis of a mutual recognition cooperation agreement which is regulated in accordance with the provisions of statutory regulations.

The process of recognizing UNESA graduates who have 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 each of these institutions is curriculum development. OBE (Outcome Based Education). In line with the needs of the KKNI, 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 just on the material that must be completed.

4. Community Needs

The main function of the curriculum is to provide learning experiences for students' self-development so that they can successfully live their lives at that time. Therefore, the curriculum developed must be able to accommodate the demands of students' future lives. Thus, the learning and self-development experiences provided must be in accordance with future needs. This learning and self-development experience is aimed at creating superior Indonesian human resources (HR).

Society is a dynamic institution. The dynamic happened which was developing 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 transition of the

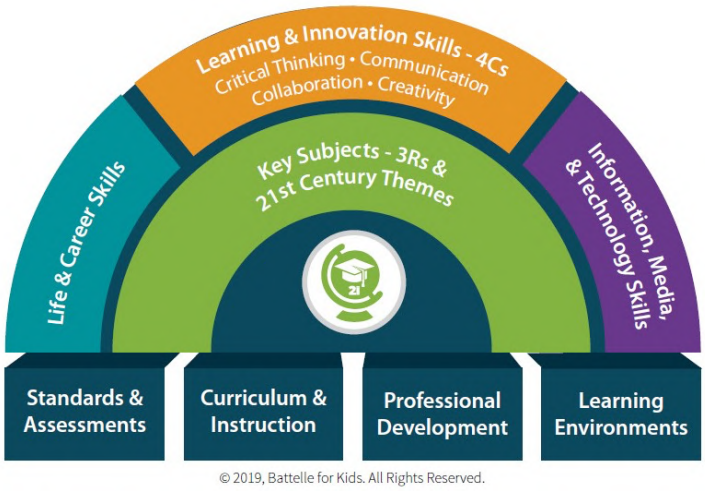
20th century to the 21st century. Human resources tend to move significantly from one job field to another. Such job mobility creates demands for different skills. These conditions require higher education to equip students with skills that enable people to adapt flexibly to different career fields and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

21st century skills are a combination of knowledge, skills, expertise and literacy that students must master to be successful in the world of work and everyday life. These skills, as formulated by P21 (2019), are divided into four main aspects (Figure 2.1), namely:

1) learning and innovation skills which include critical thinking and problem solving skills (critical thinking and problem solving), communication (communication), collaboration (collaboration), as well as creativity and innovation (creativity and innovation);
2) digital literacy skills which include information literacy, media literacy and information and communication 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 have the ability to lead and be responsible (leadership and responsibility);
4) 21st century themes which include global awareness, financial, economic, business and entrepreneurial literacy, civic literacy, health literacy and environmental literacy (environmental literacy).

21st century skills development for students can be carried out through learning supported by innovative systems, including: 1) standards and assessment, 2) curriculum and teaching, 3) professional development, and 4) learning environment.

Figure 2.1.21st Century Learning Framework (P21, 2019)



© 2019, Battelle for Kids. All Rights Reserved.

b. *Sustainable Development Goals*(SDGs)

Sustainable Development Goals(SDGs) or Sustainable Development Goals (TPB) which were declared on September 25 2015 are a form of international commitment to improving the welfare of society globally. In response to this, the Indonesian government outlined its commitments related to the TPB in Presidential Decree Number 59 of 2017

concerning Implementation of the Achievement of Sustainable Development Goals. TPB can be defined as "development that maintains the continuous improvement of the economic welfare of the community, development that maintains the sustainability of the social life of the community, development that maintains the quality of the environment and development that guarantees justice and the implementation of governance that is able to maintain the improvement in the quality of life from one generation to the next. ” (Ministry of National Development Planning, 2020). In other words, TPB generally focuses on four aspects of life including economic, social, environmental and governance.

The TPB consists of 17 goals and 169 targets which are inclusive and multidimensional as targets and scope of the global development agenda until 2030. The seventeen goals in the TPB are presented in Figure 2.2.



Figure 2.2. Seventeen Sustainable Development Goals Higher education

Knowledge building, research and skills development activities carried out in higher education contribute to the implementation of the SDGs. Higher education must be able to realize Education for Sustainable Development (ESD) which is a UN program, namely education that encourages changes in knowledge, skills, values and attitudes in a fair, equitable and sustainable manner. ESD empowers the younger generation using an integrated economic, social and environmental approach that is integrated into the formal and informal curriculum or through the integration of key sustainable development issues in learning. For example, integrating learning about climate change, disaster risk reduction, biodiversity, poverty reduction, and reducing sustainable consumption. 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 & Bagus, 2021).

c. Education 4.0

Education 4.0 is a period when higher education implements new learning methods, learning and management tools innovative, and smart and sustainable infrastructure especially

equipped with new and developing ICTs to improve the processes of knowledge generation and information transfer (Miranda et al., 2021). Education 4.0 in higher education has four core components as presented in Figure 2.3 and can be described as follows.

1) Competence

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

2) Learning methods

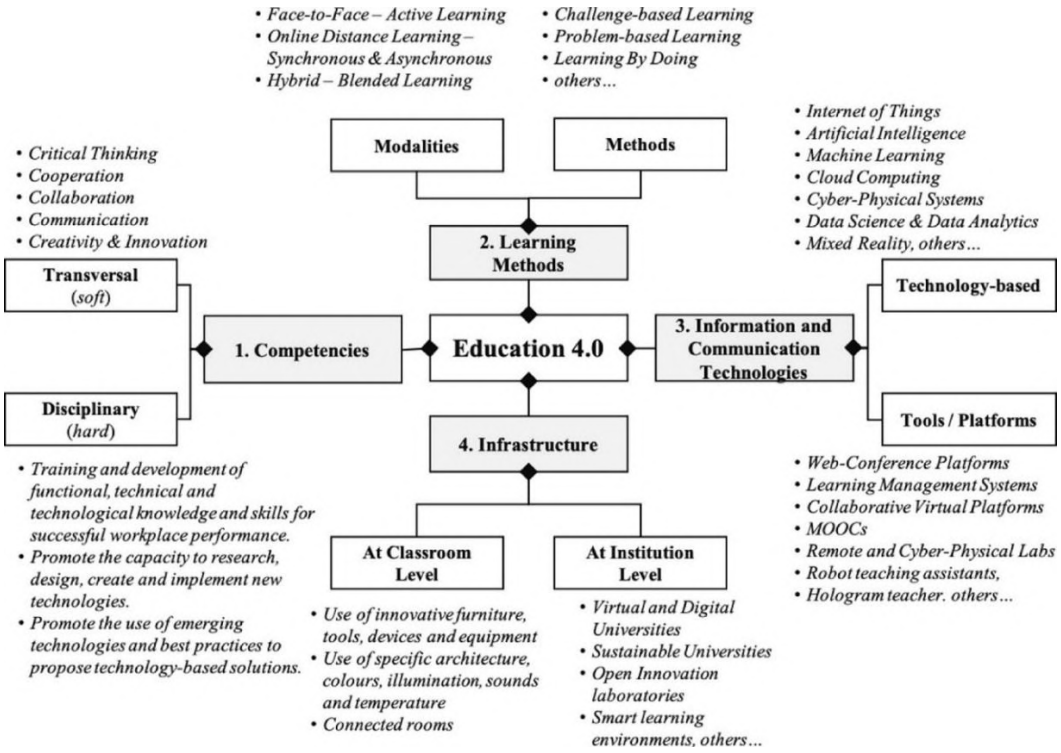
In Education 4.0, learning methods involve strategies, technology and activities that allow students to access learning appropriately and easily. Two aspects of learning methods in Education 4.0 consist of learning delivery modes and learning methods. Learning delivery modes that are often used in Education 4.0 include: (1) face-to-face learning, (2) online, and (3) blended learning. Learning methods include approaches, models, strategies or innovative 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)

ICT components in Education 4.0 include: (1) application of technology that supports 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) application of web-based digital information technology including email, blogs, wikis and online face-to-face learning platforms *Systems*(e.g., 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 challenges related to management and learning activities. The infrastructure that needs to be provided in higher education includes two levels, namely at the class level and the institutional level. 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 certain architecture, colors, sounds and temperatures that support learning, and (3) utilization of virtual and digital sources. 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, and LMS, as well as online services, such as online libraries, instant messaging systems, and remote laboratories.



Picture2.3. Core Components of Education 4.0 Higher Education (Miranda et al., 2021)

d. Emancipatory Learning-Independent Campus (MBKM)

In order to realize the autonomy and flexibility of higher education, The Ministry of Education, Culture, Research and Technology issued the MBKM policy at the beginning of 2020. One of the programs of the MBKM policy is the Right to Study Three Semesters for Students Outside the Study Program. This program aims to provide opportunities for students to develop competence, innovation, creativity, capacity, personality, independence, and build knowledge through direct experience in the field. The MBKM program relies on the philosophical principles of Progressivism Education which emphasizes meeting students' needs and interests through learning and building life experiences. MBKM learning activities can be carried out inside and outside the Study Program. The form of MBKM activities is presented in Figure 2.4.

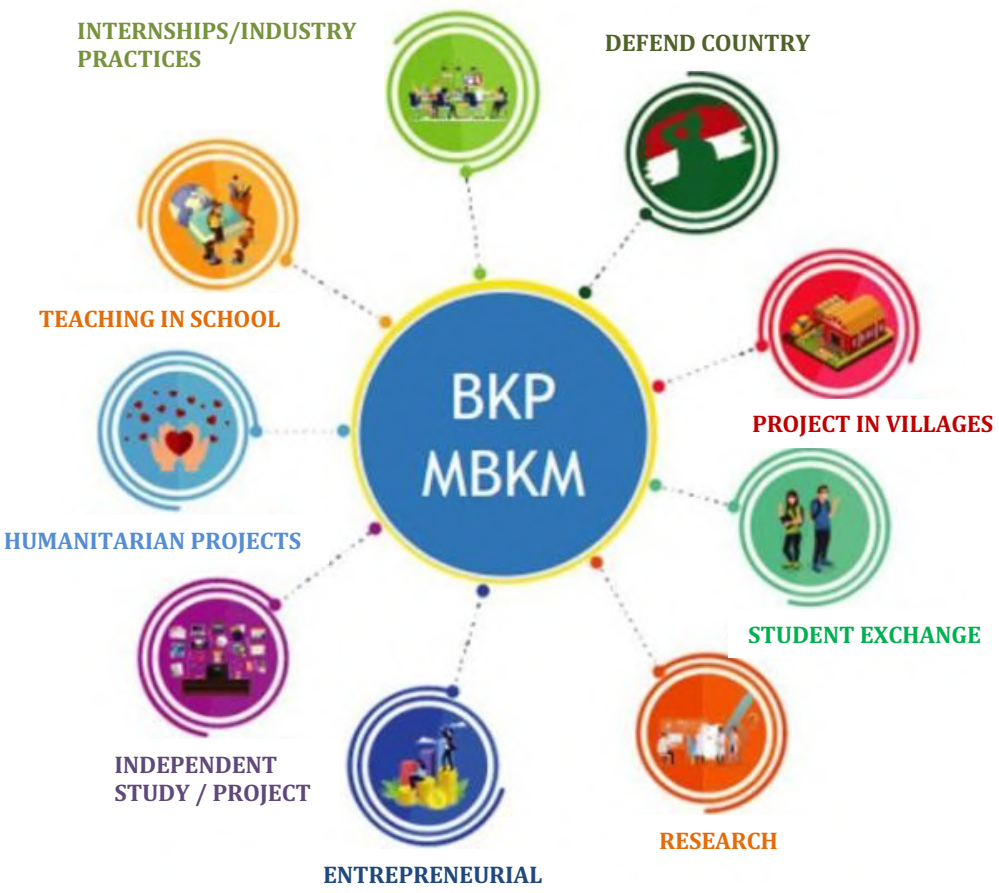


Figure 2.4. Forms of MBKM Learning Activities

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 Arts (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 its time. Curriculum development must be able to accommodate issues that develop due to developments in science and technology in accordance with the times and changes. Science and Technology issues that have an impact on the field of education and educational management developing in the 21st century are as follows.

a. *Dual Degree*

b. *Earning Credit*

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 that are in line with the demands and needs of the times as well as developments in society and science and technology.

B. Foundations of Curriculum Development

Ideal curriculum development is carried out using a strong foundation, both philosophical, sociological, psychological, historical and juridical. This is to ensure that the resulting curriculum is a product of a comprehensive and systemic thinking system that accommodates all activities carried out to achieve the goals. The activities in question are not only academic activities but also non-academic activities to support the achievement of UNESA's vision and mission. The basis for curriculum development is described as follows.

1. Philosophical

The philosophical basis is an assumption or formulation obtained from the results of deep, analytical, logical and systematic thinking. The philosophical basis for curriculum development in educational institutions is a basis based on philosophy related to the meaning or nature of education. Several philosophies in curriculum development, including perennialism, 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, namely paying attention to the advantages of appropriate philosophical foundations (Akinsanya, 2014) to achieve UNESA's vision as a strong, adaptive and innovative educational university based on entrepreneurship.

2. Sociological

The sociological basis directs the study of curriculum development in relation to the conditions and culture of the local community. This foundation is used because students come from the community, receive education in a community environment, and are directed towards community life as well. Changes and developments in values in society will influence the order of social life. Therefore, the curriculum must be able to respond to the challenges, demands and developments of society both locally and globally as the target users of graduates produced from the developed curriculum.

As part of Indonesian society and nation, curriculum UNESA was 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 cultural diversity, so this curriculum needs to accommodate this to strengthen national culture. The development of culture with local wisdom where UNESA grew and developed has become a distinctive feature that displays the characteristics of UNESA as part of the broad diversity of Indonesian society. Apart from that, the UNESA curriculum also takes into account the development of global society so that graduates are expected to be able to

collaborate and compete at an international level.

3. Psychological

The psychological foundation is a basis based on the characteristic conditions of humans as individuals, which are expressed in various forms of behavior, both cognitive, affective and psychomotor as a result of the individual's interaction with learning (Slavin, 2006). Considering the importance of psychological aspects, curriculum development needs to accommodate students' conditions so that learning can achieve the expected goals.

UNESA students are psychologically at the stage of formal thinking, the stage of moral development which has generally reached post-conventional (Kohlberg & Gilligan, 2014), and the stage of social development which has reached adolescence with distinctive characteristics. For this reason, the UNESA curriculum being developed needs to pay attention to the stages 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 curriculum development needs to pay attention to the dynamics of these developments to produce a curriculum that makes students feel comfortable and served to obtain maximum results. This can be accommodated in the form of implementing a curriculum that meets needs, namely deepening knowledge as strengthening knowledge and freedom in learning 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 carried out without any restrictions on subject, space and learning time through the use of digital transformation so that they are able to carry out lifelong learning. sustainably.

4. Historical

Historically, the development of the UNESA curriculum has gone in the same direction as the development of the institution which started with the BI and B-II teacher courses in the 1950s, which then developed into the Teacher Education Academy to FKIP and IKIP Surabaya. In subsequent developments, IKIP Surabaya was transformed into a university as an expansion of its mandate to develop non-educational programs in addition to the educational programs that had long been implemented. In this way, curriculum development is also carried out following this process in line with regulations and the laws in force at the time.

The curriculum at UNESA is experiencing quite dynamic development. This development is adjusted to the needs and regulations that apply when curriculum development is carried out. For example, when a national curriculum is applied which is determined by an education consortium, the resulting curriculum has not yet led to the achievement of UNESA's vision and mission. When regulations regarding curriculum development come into effect, the curriculum begins to be organized according to the correct direction and procedures.

Based on this historical basis, the curriculum development process needs to pay attention to various strengths and weaknesses as well as the characteristics of curricula that have been produced and used. This needs to be used as a basis for producing a better curriculum by paying attention to applicable conditions and regulations.

5. Juridical

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

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

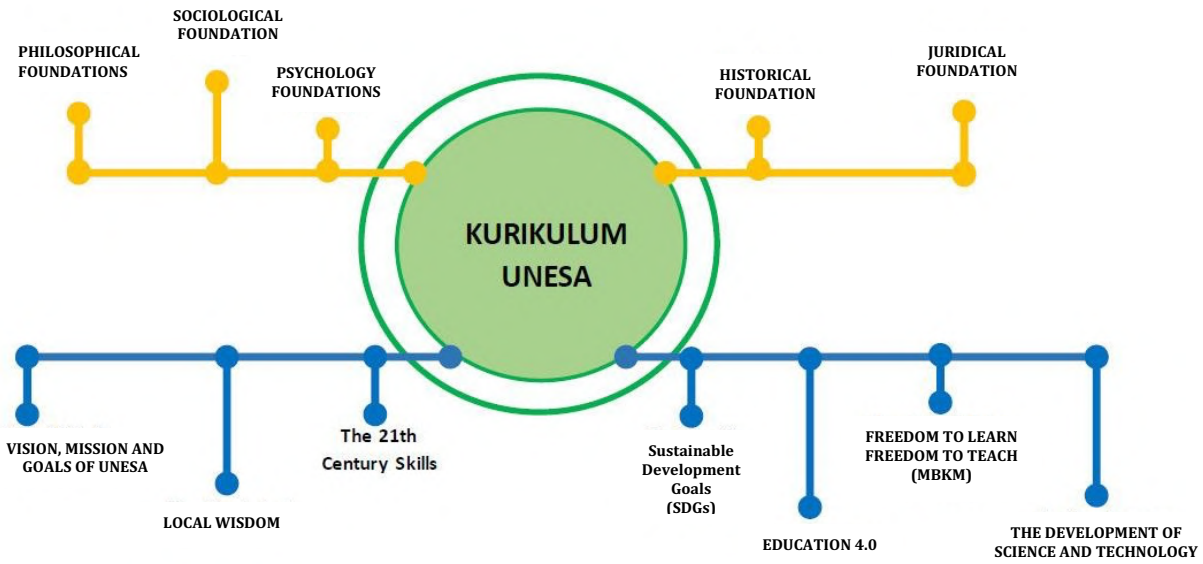


Figure 2.5. Aspects underlying UNESA Curriculum Development

C. Principles of Curriculum Development

A strong curriculum results from a curriculum development process that contains the principles of relevance, flexibility, sustainability, efficiency and effectiveness. Therefore, curriculum development at UNESA also follows these principles to realize UNESA's vision and mission. In general, the principles of UNESA curriculum development are presented in Figure 2.6 and described in the following paragraphs.

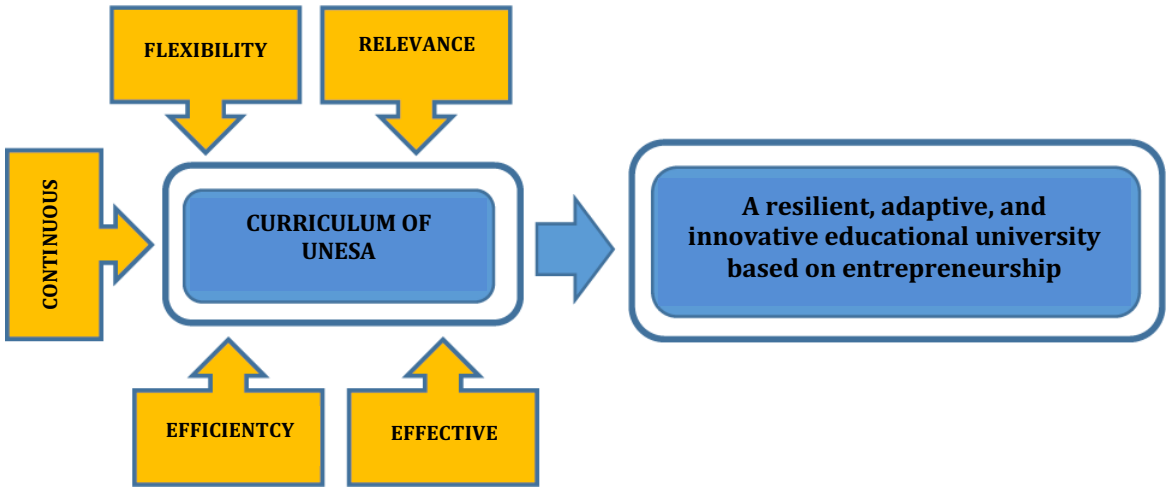


Figure 2.6. Principles in UNESA Curric ulum Development

1. Relevance

The curriculum developed must have a link between the field of knowledge (discipline/content) and the needs of society (social needs) as users of graduates. The linkage which means that the curriculum is developed apart from meeting user/market needs is also the implementation of an in-depth study of the field of science being developed. Therefore, curriculum development takes into account the needs of society and users, as well as developments in science and technology.

2. Flexibility

The curriculum developed has flexibility for 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 which are implemented by graduates resulting from 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 curriculum developed has the principle of horizontal continuity between sections of scientific disciplines. Apart from that, the curriculum developed also considers the ability to develop to a higher level. This is necessary so that the curriculum does not appear to be disconnected between sections or is a circle centered in one place.

4. Efficiency

The curriculum being developed needs to pay attention to efficiency aspects to obtain usability in the system as a whole. Efficiency in curriculum development is carried out through selecting courses that suit the graduate profile, providing student workload, using time, energy, costs and other resources carefully and precisely to achieve optimal results in accordance with the objectives.

5. Effectiveness

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

CHAPTER III CURRICULUM DEVELOPMENT PROGRAM

UNESA provides academic, professional and vocational education in various fields of science, at levels starting from Diploma, Undergraduate Program, professional education, Masters and Doctoral degrees in educational and non-educational fields. The educational program is managed by the study program. The study program is tasked with designing, organizing and evaluating the curriculum so that the curriculum meets aspects of relevance and quality in order to achieve UNESA's vision. This aspect is fulfilled when the curriculum is relevant to user needs, equivalent to the competency leveling based on the KKNI (Perpres No. 8 of 2012) and National Higher Education Standards (Permenristekdikti No. 3 of 2020), and in accordance with the standards set at UNESA.

In order to fulfill 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 line with the vision and mission of the faculty/SPs, the vision and mission of UNESA, as well as in accordance with Indonesia's national education goals. Apart from that, the basic framework of the study program curriculum can also be used as a reference in solving problems that arise in the process of developing the study program curriculum, as well as as an effort to ensure academic quality within UNESA. Thus, the basic framework of the study program curriculum is the signs that are established and used as guidelines in preparing the study program level curriculum.

In the UNESA context, the curriculum is a set of plans and arrangements regarding objectives, content and learning materials as well as methods used as guidelines for organizing learning to achieve certain study program objectives. The study program curriculum is developed by referring to the basic framework of the study program curriculum which contains the study program's vision, mission, goals and objectives, study program learning outcomes, curriculum structure and map, and course descriptions, which are appropriate to the type and level of education.

The curriculum always changes from time to time according to developments and changing times. As time goes by, we are currently in the era of 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 society's needs. The study program curriculum that applies at UNESA has undergone changes since 2014. Gradually the study program has developed and implemented a study program curriculum based on KKNI, SNPT, and Merdeka Belajar – Independent Campus.

In addition, considering the importance of international accreditation in efforts to support internationalization, the development of the study program curriculum at UNESA needs to be accommodated through the implementation of the Outcome-Based Education (OBE) approach while still referring to the Indonesian Minister of Education and Culture Regulation 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 experience design to develop students' abilities (competencies) in accordance with the competency level of graduates according to the KKNI in the study program being taken and also in accordance with the characteristics of the study program. 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 combination of mastery in a person's cognitive, affective and psychomotor domains. The competency outcomes of students in a study program at UNESA refer to the Minister of Education and Culture of the Republic of Indonesia Regulation No. 3 of 2020 concerning National Higher Education Standards (SNPT), which includes attitudes, knowledge and skills expressed in the formulation of Program Learning Outcomes.

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

1. **Study Program Identity**, including: Name of University, Faculty, Study Program, Accreditation, Education Level, Graduate Degree, Vision and Mission.
2. **Curriculum Evaluation and Tracer Study**, explains the results of the evaluation of curriculum implementation that has been and is currently underway by presenting the mechanism and results of curriculum evaluation. The results of the tracer study are also explained as a form of needs analysis based on stakeholder needs.
3. **Foundations of Curriculum Design and Development**, explains the basis for curriculum development including philosophical, sociological, psychological, historical, juridical, and other foundations.
4. **Formulation of Vision, Mission, Goals and Basic Values**, mentions in full
   formulation of vision, mission, goals and basic values. The vision, mission and goals of the study program are linked to the vision, mission and goals of the faculty and UNESA. The study program's scientific vision is the study program's ideals in studying and developing certain knowledge that is superior and characterizes 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 study program's scientific vision is formulated based on input from the entire study program academic community. A mission is a task that must be carried out or must be carried out to achieve a vision that has been set within a certain period of time to become a reference for preparing the main program of the study program. The main mission of the study program is the tridharma of higher education. The aim of the study program is to produce graduates as reflected in the graduate profiles that have been determined in the study program curriculum. The goal is the estuary of the mission, meaning that the goal is achieved when the mission has been carried out as it should. Basic values are something that can give meaning to all efforts and work and provide guidelines for realizing a vision. Basic values are a philosophy or belief that inspires high enthusiasm for efforts to realize a vision. The basic values that are grown and believed in at UNESA as stated in the UNESA Statutes are as follows, hereinafter known as UNESA TANGKAAS REK (TANGGuh, Collaborative, Adaptive, innovative, inclusive, lifelong learning, and Entrepreneurship-based):
   - **Tough:** Internalisation of Pancasila values in everyday lifeand have fighting power.
   - **Collaborative:**able to work together to generate ideas or solve problems.
   - **Adaptive:**able to adapt independently and take 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 current developments based on an entrepreneurial spirit and scientific principles.
- **Inclusive:**supports all individuals regardless of differences, facilitates everyone's success, and respects differences of thought and diversity.
- **Lifelong learning:**have awareness of areas of strength and areas that need improvement, actively find effective ways to continue to develop and improve themselves through a continuous learning process.
- **Entrepreneurship:**able to develop creativity and innovation to create change by utilizing opportunities and resources to produce added value.

5. **Formulation of Graduate Competency Standards (SKL)**which are stated in the Graduate Learning Achievements (PLO) or study program learning outcomes which consist of aspects: Attitudes and General Skills referring to the UNESA Basic Values (TANGKAAS REK), as well as aspects of Knowledge and Special Skills formulated referring to the KKNI descriptors according to the level and formulated together with study program and professional associations. This component also contains information about the Graduate Profile of the study program.
6. **Determination of Study Materials,**determined based on the PLO and/or Body of Knowledge of a study program which is then used for the formation of new courses, and evaluation and reconstruction of old or ongoing courses.
7. **Formation of Courses (MK) and Determination of Credit Weights**, explains the mechanism for forming courses based on PLO (and its derivatives at MK level) and study materials, as well as determining the weight of credits.
8. **Curriculum Matrix and Map**, describes the course organization or curriculum map in a logical and systematic structure in accordance with the study program's PLO. The distribution of courses is arranged in a series of semesters during the study period of 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 fromthe results of the learning design, written in full for all courses in the study program, accompanied by other learning tools including: student assignment plans (Follow Up Plan), assessment instruments in the form of rubrics and/or portfolios, and teaching materials.
10. **Plan to Implement the Right to Study Outside the Study Program**, is the implementation of the MBKM policy which is stated in the determination: 1) study outside the same study program at the PT, 2) study at the same study program outside the PT, 3) study at a different study program outside the PT, and 4) study outside the PT .

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

B. Study Program Curriculum Content

The content of the study program curriculum is packaged in the study program curriculum document. The study program curriculum is directed at forming graduate competencies that are able to integrate skills in (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) specific skills. Attitudinal competence is correct and cultural behavior as a result of internalization and actualization of values and norms which are reflected in spiritual and social life. General skills competencies reflect general work abilities that must be possessed by every natural graduate in order to ensure equality of graduate abilities according to program level and type of higher education. Knowledge competency is systematic mastery of concepts, theories, methods and/or philosophy in a particular field of science. Special skills competencies reflect the special work abilities that every graduate must have in accordance with the scientific field of the study program. These four competencies are obtained through reasoning in the learning process, student work experience, research and/or community service related to learning. Competencies of attitudes, knowledge, general skills and special skills that are developed in UNESA students refer to the KKNI, SNPT and UNESA Vision.

UNESA has a vision as a strong, adaptive and innovative educational university based on entrepreneurship. One of UNESA's goals related to this vision is to produce human resources with character, professionalism, multiple intelligences, fighting power, high competitiveness, innovation and an entrepreneurial spirit. The parameters of graduate excellence in competitiveness are reflected in superior English language skills. One effort to realize this excellence is the existence of English courses for all study programs at UNESA. This English course is one of UNESA's characteristic courses. To graduate from a particular study program, students must have a score TEP according to requirements. Determination of the minimum TEP score to pass is regulated in the Academic Guidelines set by the Rector.

The parameters of the graduate's character excellence are in the form of charactertough, adaptive, innovative based on entrepreneurship. Efforts to develop this character are carried out through academic and non-academic activities. Courses that can be applied to all D-4 and undergraduate study programs at UNESA to develop tough, adaptive and innovative characters are Entrepreneurship, Physical Education and Fitness, and Digital Literacy which are programmed for students as Institutional Compulsory Subjects (MKWKI). Entrepreneurship courses are intended to develop innovative character and entrepreneurial spirit in prospective UNESA graduates. Physical Education and Fitness and Digital Literacy courses are courses to develop tough, adaptive character and competence in accordance with the demands of the times. In addition, UNESA provides Institutional Elective Courses (MKPI) as recognition courses for students' competency achievements and character development. The packaging of study

materials into these courses is shown in Table 3.1.

For non-academic activities, a system was developed

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

Table 3.1.UNESA Characteristics Study Materials and Their Packaging Subject

No	Superiority	Courses/Study Materials	Information
1.	Communicate deeply English	English	Stand alone as subject
2.	Resilient, adaptive, and innovative	Entrepreneurship	Stand alone as MKWKI
3.	Resilient and adaptive	Physical Education and Fitness	Stand alone as MKWKI
4.	Adaptive and innovative	Digital Literacy	Stand alone as MKWKI
5.	Adaptive and collaborative	Emotional Learning and	Stand alone as

No	Superiority	Courses/Study Materials	Information
		Social	MKPI
6.	Resilient, adaptive, and innovative	Event Management	Stand alone as MKPI
7.	Logical, critical thinkin, creative, innovative	Critical Thinking and Creative	Stand alone as MKPI
8.	Adaptive and collaborative	Inclusive Leadership	Stand alone as MKPI
9.	Resilient, adaptive, and innovative	Empathy and Intelligence Emotional	Stand alone as MKPI
10.	Resilient, adaptive, innovative, and collaborative	Communications and Teamwork	Stand alone as MKPI
11.	Responsibility, independence, and collaboration	UNESA soft skills	Stand alone as MKPI
12.	Resilient, adaptive, and innovative	UNESA communications skills	Stand alone as MKPI
13.	Logical, critical thinking, creative, and responsible answer	UNESA international conference	Stand alone as MKPI
14.	Logical, critical thinking, creative, and responsible answer	UNESA national conference	Stand alone as MKPI
15.	Adaptive and innovative	Inclusion	Payload integratedin subject education
16.	Adaptive and innovative	Cultural Diversity	Payload integrated in vocational courses

Apart from the UNESA characteristic courses, study programs can choose the appropriate MKPI as a form of recognition of the learning achievements obtained by students, especially when taking the BKP MBKM. The MKPI is not held through face-to-face learning, but is based on evidence that students have when taking the BKP MBKM. An explanation of the MKPI is presented in Table 3.2.

Table 3.2. Institutional Elective Course

No	Course	Course Description	Credit Unit	Course Learning Outcome	Recognition proof
1	Emotional and Social Learning	Recognition of the learning achievements obtained by students in building self-awareness, managing emotions and motivation, better social engagement, developing good interpersonal relationship skills, and making critical and responsible decisions in facing change, adapting to the environment, the ability to adapt, be creative, and work well with others. The assessment takes the form of a portfolio assessment.	2 (0-2)	Able to apply methods to build self-awareness, manage emotions and motivation, and develop interpersonal relationship skills in real contexts.	Certificate or statement accompanied by a portfolio of activities involving activities in accordance with PLO

No	Course	Course Description	Credit Unit	Course Learning Outcome	Recognition proof
2	Management Events	this course serve as form of confession on achievements learning obtained by students When participate in a management event or activity committee regional scale, national or international. Assessment in the form of portfolio assessment.	2 (0-2) (Event Regionsal) 3 (0-3) (Event National 4 (0-4) (Event Internal asiona	Able to apply internal abilities event management which cover activity planning, logistics organization, financing, publication, promotion, legality, documentation and maintenance an event	1. Certificate of Activities as Core Committee ● Chairman ● Deputy Chairman ● Secretary is ● Fig 2. Certificate of Activities as a Supporting Committee
3	Critical and Creative Thinking	Recognition of learning achievements obtained students from his abilities are deep think rationally and reflective for decision making, and ability use imagination, intelligence, insights and ideas in order to finish problem or make ideas come true specific to the context real. Evaluation in the form of an assessment	l)	Able to show thinking ability rational and reflective to make decisions, as well ability using imagination, intelligence, insights and ideas in order to finish problem or make ideas come true certain	Certificate or letter information
4	Inclusive Leadership	portfolio.	2 (0-2)	1. Able to utilize learning resources and ICT to find information relevant to leadership in the field of education. in the field of education.	1. Certificate/ charter/trophy/medal/vandel/other forms; 2. Letter Decree/Letter of assignment/letter of permission:

No	Course	Course Description	Credit Unit	Course Learning Outcome	Recognition proof
		leadership in education and educational institutions in Indonesia, including characteristics and Capabilities that It is necessary for an educational leader to manage an organization or educational institution. Leadership skills that students canlearn are decision-making skills to influence, mobilize, develop and empower all potentials educational resources . Learning is carried out with a constructivistic approachand ends with an exercise in planning the management of an educational institution in group discussion and reflection activities. Valuation uses portfolio valuation.		2. Have knowledge of theories, concepts, typologies, styles and models / approaches n leadership in general, which is further associated with leadership 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 educational resources through case analysis. 4. Have an independent leadership attitude, care and responsibility for all learning tasks that have been designed both individually and in groups.	3. Attendance list (for regular activities); 4/ Real work and/or its documentation
5	Empathy and Emotional Intelligence	Recognition of learning outcomes gained Related Students	2(0-2)	Have the ability understand the emotions of others and what	Certificate or certificate equipped with a portfolio of activities that comply with CP.

No	Course	Course Description	Credit Unit	Course Learning Outcome	Recognition proof
		Social and emotional skills that sustain positive relationships in relating to others. It includes the basic and related skills of empathy and "emotional intelligence," also known as EQ, which refers to being able to identify and regulate our own feelings, harmonize the feelings of others and understand their perspectives, and use this knowledge to: • Constructive social interaction, for more effective teamwork, problem solving, and Recovery from setbacks; • Strengthen empathy, trust, and collaboration among teams and resolve conflicts more constructively with Special emphasis on how socially intelligent leadership can build a culture of belonging and engagement in teams. Valuation using portfolio valuation.		that the other person perceives and is able to create conditions (verbal or action) that influence him to the positive side	

No	Course	Course Description	Credit Unit	Course Learning Outcome	Recognition proof
6	Communication and Team Collaboration	This course serves as a form of recognition of the learning outcomes obtained by students from experience in public activities speaking and teamwork. Valuation uses portfolio valuation.	2 (0-2)	• Distinguish between groups and teams, including the characteristics of different types of teams • Develop the team and optimize the factors that contribute to the team's success • Communicate effectively within the organization, and seek solutions to common barriers to effective communication • Choosing effective communication channels, flows, and networks in an organization based on the situation • Identify common risks and ethical issues associated with verbal, written and through communication • social media	Certificate or certificate equipped with a portfolio of activities that comply with CP.
7	UNESA Softkills	This course facilitates the development of emotional, social, and social skills . Communicate, and collaborate on real situations . Assessment carried out with a portfolio.	2 (0-2)	Have emotional, social, communication, and collaboration skills.	Certificate or certificate equipped with a portfolio of activities that comply with CP.
8	UNESA Communication Skills	The eyes of this lecture Reviewing and Applying	2 (0-2)	• Student able to communicate	• Scietific work • Certificate

No	Course	Course Description	Credit Unit	Course Learning Outcome	Recognition proof
		Oral and written communication skills based on communication theory and based on ethics and morals in real situations. Valuation uses portfolio valuation.		• orally with due regard to the principles of communicating based on ethics and morals • Students are able to communicate in writing by paying attention to rules, ethics and morals in Speak	seminar as a speaker • work in the form of a project • entrepreneur ship Certificate or certificate equipped with the appropriate activity portfolio CP.
9	UNESA internasional conference	This course serves as a form of recognition of the learning achievements obtained by students when participating as presenters, both in the form of oral presentations and posters at international scientific forums. Valuation uses portfolio valuation.	3 (0-3)	• Students are able to develop the ability to communicate orally and in writing, think critically, creatively, innovatively, responsively, and analytically. • Students are able to disseminate the knowledge and competencies possessed in conference/seminar activities	• Seminar Papers • Certificate as a presenter
10	UNESA national conference	This course serves as a form of recognition of the learning achievements obtained by students when participating as presenters, both in the form of oral presentations and posters at national scientific forums. Valuation uses portfolio valuation.	2 (0-2)	• Students are able to develop the ability to communicate orally and in writing, think critically, creatively, innovatively, responsively, and analytically. • Students are able to disseminate n knowledge and competencies that are owned in conference/seminar activities	• Seminar Papers • Certificate as a presenter •

C. Learning Outcomes and Study Program Curriculum Structure

UNESA provides education in various educational and non-educational study programs which consist of 2 pathways, namely academic and professional pathways. In the academic pathway there are undergraduate, master's and doctoral levels, while in the professional pathway there is the Professional Teacher Program (PPG).

1. Academic Track

a. Bachelor level

The undergraduate level at UNESA is held to prepare graduates who have undergraduate qualifications. The main profile of Bachelor of Education graduates is as academics/educators/educational personnel who are ready to be trained further to become teachers or professional educational personnel according to their field. The main profile of a non-educational undergraduate is as an academic or expert who is ready to be trained further to become a professional in their field. Study programs can add additional profiles based on needs analysis.

1) Program Learning Outcomes (PLO)

Based on the KKNI, SNDIKTI, and UNESA Vision, the learning outcomes of UNESA Undergraduate (PLO) are as follows.

Table 3.3. Learning Achievements of Bachelor of Education Graduates

No	PLO realm	PLO	
		Bachelor	**Diploma/ Applied Bachelor**
1	Skills General	1) Develop logical, critical, creative thinking in context development or implementation of science knowledge and technology according to the field 2) Demonstrate independent, quality and measurable performance and be able to make appropriate decisions in solving problems 3) Capable to develop yourself sustainably, communicate, and collaborate	1) Develop logical, critical thinking,creativein perform field-specific workhis expertise as well asin accordance with work competency standards in the field concerned 2) Demonstrate independent, quality and measurable performance and be able to make appropriate decisions in solving problems 3) Capable to develop yourself sustainably, communicate, and collaborate
	Attitude	1) Able to show religious and national values and national culture, as well as academic ethics in carrying out their duties 2) Demonstrate the character of being tough, collaborative, adaptive, innovative, inclusive, lifelong learning, and passionate entrepreneurship	
3	Knowledge	The study program was formulated referring to the study program association and profession, as well as the uniqueness of the UNESA study program.	
4	Skills Special	The study program was formulated referring to the study program association and profession, as well as the uniqueness of the UNESA study program.	

2) Curriculum Structure

The basic educational study materials for UNESA's Bachelor of Education are packaged as follows.

Table 3.4. Packaging of Educational and Learning Study Materials to in the course

No	Study Materials	Subject
1.	The nature and role of education in order human formation (nature, philosophy education) educational foundation, system	Basics of Education
2.	Student development and learning theory which underlies learning practice	Learning Theory
3.	Curriculum and essential concepts/principles/theories subjects/guidance	School Curriculum
4.	Types, selection and development of teaching materials	Teaching Development Material
5.	Assessment in learning	Evaluation Learning and Learning
6.	Designing learning in the classroom oriented towards active learning	Planning Learning
7.	Application of theoretical concepts of education and learning in an artificial context	Skills Teach and Microlearning
8.	Application of scientific methods to finish problems in the field of education	Thesis

The curriculum structure of the UNESA Bachelor of Education Study Program follows the basic framework according to Table 3.5.

Table 3.5. Basic Framework for the Bachelor of Education Curriculum

Subject	Amount CREDIT UNIT	Determination and Description Level
MKW K National		
Religion • Islam • Christianity • Catholic Religion • Hindu religion • Buddhism • Confucian Religion	2	National, managed by institutions
Pancasila	2	National, managed by institutions
Citizenship	2	National, managed by institutions
Indonesian	2	National, managed by institutions
MKW K Institutional		
Physical Educationand Fitness	2	Institutional, managed by institutions
Digital Literacy	2	Institutional, managed by institutions
Entrepreneurship	2	Institutional, managed faculty/study program
English	2	Institutional, managed faculty/study program
SubjectExpertise and Knowledge		
Related courses with appropriate academic competence for the substance of the main study (content knowledge). with each product	Set Study Program	Study Program
Basic Skills Courses		
Subject	**Amount credit unit**	**LevelsDetermination and Description**
Research methods	3	Institutional, managed faculty/study program
Statistics	2	Institutional, managed faculty/study program
Basics of Education	2	Institutional, managed faculty/study program
Learning Theory	2	Institutional, managed faculty/study program
School Curriculum (related Field of study)	2	Institutional, managed faculty/study program
Learning Planning (related to field of study)	2	Institutional, managed faculty/study program

EvaluationLearningand Learning (related to Field of Study)	2	Institutional, managed faculty/study program
Development of Teaching Materials (related to field of study)	2	Institutional, managed faculty/study program
Teaching Skillsand Micro Learning	2	Institutional, managed faculty/study program
Creative Skills Course		
PLP Program Planning	2	Institutional, managed by institutions in accordance with the Study Program PLO
EvaluationPLP Program	2	
COURSE Study Program/MK chosen by the institution	16	
Thesis Proposal Seminar	2	Institutional, managed by faculty/study program
Thesis	4	Institutional, managed faculty/study program
Community Life Course		
Program Planning	2	This COURSE learning activity in the form of Internship/Practice Work, Assistanc Teach,Research/Research Project Humanity, Activities Entrepreneurship, Studies/Projects Independent, Building Village/Thematic Real Work Lecture, or National Defense.Specifically for the form of Student Exchange, it doesn't have to be there COURSE Program Planning and Program Evaluation
Program Evaluation	2	
MKPI/COURSE Study Program/COURSE choice of study program	16	

The curriculum structure of the UNESA Non-Education Undergraduate Study Program follows the basic framework according to Table 3.6

Table 3.6. Basic Framework for the Non-Educational Undergraduate Curriculum

Subject	Credit Unit Amount	LevelsDetermination and Description
COURSEW K National		
Religion • Islam • Christianity • Catholic Religion • Hindu religion • Buddhism • Confucian Religion	2	National, managed by institutions
Pancasila	2	National, managed by institutions
Citizenship	2	National, managed by institutions

Indonesian	2	National, managed by institutions
MKW K Institutional		
Physical Educationand Fitness	2	Institutional, managed by institutions
Digital Literacy	2	Institutional, managed by institutions
Entrepreneurship	2	Institutional, managed faculty/study program
English	2	Institutional, managed faculty/study program
SubjectExpertise and Knowledge		
Related courses with academic competence in the substance of the main study (content knowledge) according to each study program	Set Study Program	Study Program
SubjectBasic Skills		
Research methods	3	Institutional, managed faculty/study program
Statistics	2	Institutional, managedfaculty/study program
Creative Skills Course		
Planning Internship Program	2	Institutional, managed by the institution in accordance with the PLO Study Program
Evaluation of Internship Programs	2	
COURSE Study Program/COURSE chosen by the institution	16	
Thesis Proposal Seminar	2	Institutional, managed faculty/study program
Thesis	4	Institutional, managed faculty/study program
Community Life Course		
Program Planning	2	This COURSE learning activity in the form of Internships/Work Practices, Teaching Assistantships,Research/ResearchProject. Humanity, ActivityBusinessman, Study/ProjectIndependent,
Program Evaluation	2	
MKPI/COURSE Study Program/COURSE choice of study program	16	

Subject	Credit Unit Amount	LevelsDetermination and Description
		Real Work Village/University Thematic, or National Defense.Special shape ExchangeStudents, there is no need for COURSE for Program Planning and Program Evaluation

The curriculum structure of the D-4 or Applied Bachelor Study Program follows the basic framework according to Table 3.7.

Table 3.7. Basic Framework for the D-4 or Applied Bachelor's Curriculum

Subject	amount credit unit	LevelsDetermination and Description
MKW K National		
Religion • Islam • Christianity • Catholic Religion • Hindu religion • Buddhism • Confucian Religion	2	National, managed by institutions
Pancasila	2	National, managed by institutions
Citizenship	2	National, managed by institutions
Indonesian	2	National, managed by institutions
MKW K Institutional		
Physical Educationand Fitness	2	Institutional, managed by institutions
Digital Literacy	2	Institutional, managed by institutions
Entrepreneurship	2	Institutional, managed faculty/study program
English	2	Institutional, managed faculty/study program
SubjectExpertise and Knowledge		
Related courses with appropriate academic competence for the substance of the main study (content knowledge). with each product	Set Study Program	Study Program
SubjectBasic Skills		
Research methods	3	Institutional, managed faculty/study program
Statistics	2	Institutional, managed faculty/study program

Creative Skills Course		
Field work practice I	4	Institutional, managed by institutions in accordance with the Study Program PLO
Field Work Practice II	4	
SeminarProposalsTaCredit Unit End	2	Institutional, managed faculty/study program
Thesis	4	Institutional, managed

Subject	Credit Unit Amount	Determination and Description Level
		faculty/study program
Community Life Course		
Program Planning	2	This COURSE learning activity in the form of Internship/Practice Work, Assistance Teach,Research/Research Project Humanity, ActivityBusinessman, Study/ProjectIndependent, Building Villages/Thematic Real Work Lectures, or Defending the Country, Specifically for the Student Exchange form, there is no need for COURSE for Program Planning and Program Evaluation
Program Evaluation	2	
MKPI/COURSE Study Program/COURSE choice of study program	16	

Courses that are determined at the national and institutional level are managed by the Academic Division of the relevant university and faculty. Specifically for entrepreneurship courses, the management of these courses is handed over to the study program or faculty.

Broadly speaking, the undergraduate curriculum structure consists of a Core Curriculum which is intended to develop main competencies (85% of all credits that must be taken by students) and an Elective Curriculum which is intended to strengthen main competencies/competencies. Supporting other competencies (ideally 15% of the total credits that must be taken by students) are offered in the form of elective courses. The number of elective course credits offered is at least 2 times the number of elective course credits that must be programmed, including including elective courses in Table 3.2. The minimum number of credits for elective courses that must be programmed is 9 credits.

In the context of character development, apart from through academic activities which are realized in courses with a certain credit load and integrated with learning activities, students are required to take part in student activities which will be converted into certain points, and become one of the graduation requirements. Further settings on pr recognition purposes, study programs can choose several course options, including: core COURSE study program, COURSE choice study program, or MKPI.

b. Master's level

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

1) Program Learning Outcomes (PLO)

Based on KKNI, SNDIKTI, and UNESA Vision, UNESA's Postgraduate PLO is at least as shown in Table 3.8.

Table 3.8. Learning Achievements of Master's Graduates

No	PLO realm	PLO
1.	Attitude	1) Able to show religious and national values and national culture, as well as academic ethics in carrying out their duties 2) Demonstrates tough, collaborative, adaptive character,innovative, inclusive, lifelong learning, and entrepreneurial spirit, as well as professionally and ethically responsible
2.	Skills General	1) Develop logical, critical, systematic thinking, and creative based on scientific rules, procedures and ethics. 2) Develop yourself sustainably and collaborate
3.	Knowledge	Formulated by Study program refers to the association of Study program and uniqueness of the UNESA Study Program
4.	Skills Special	Formulated by Study program refers to the association of Study program and uniqueness of the UNESA Study Program

2) Curriculum Structure

The curriculum structure of the UNESA Masters in Education Study Program follows a frameworkbasis according to Table 3.9.

Table 3.9. Basic Framework for the Master of Education Curriculum

Subject	Study Materials	Amount CREDIT UNIT	Levels Determination and Information
Philosophy Education	Study of ontology, epistemology, and axiology of science in accordance with the Study Program	2	Institutional, managed by the study program
Subject	**Study Materials**	**amount credit unit**	**Determination Level and Information**
(according to product)			

Research methodology	Application of the scientific method to quantitative, qualitative and mixed approaches in educational fields according to the study program Study of the latest research results according to the field of study, including lecturers' work that is relevant to research interests	3	Institutional, managed by the study program
Studies Field/Inter nship	Implementation of management and competency in educational or training tasks or field studies	2	Institutional, managed by the study program
Thesis Publication Proposal	Knowledge development, 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 the study program
Subject related to academic competence	The main study substance (content *knowledge*) according to the study program concerned Study of the latest research results according to the field of study, including lecturers' work that is relevant to research interests	Fixed right?	study program

The UNESA non-education Master's program curriculum structure follows the basic framework according to Table 3.10.

Table 3.10. Basic Framework for the Non-Educational Masters Curriculum

Subject	Study Materials	Amount CREDIT UNIT	Determination Level and Description
Science phylosophy (according to product)	Study of ontology, epistemology, and axiology of science in accordance with the Study Program	2	Institutional, managed by the study program
Research methodology	Application of the scientific method to quantitative, qualitative, or mixed approaches in educational fields according to the study program Study of the latest research results according to the field of study, including the work of lecturers who are relevant to	3	Institutional, managed by the study program
Subject	**Study Materials**	**Amount CREDIT UNIT**	**Determination Level and Description**
	research interests		
Studies Field/Inter nship	Implementation of management and competency in a specific skill assignment or field study	2	Institutional, managed by the study program
Thesis Publication Proposal	Knowledge development, technology, or art in fields relevant to the study program and learning methods through research with an inter- or multi-disciplinary approach	6 2 2	Institutional, managed by the study program
Subject related to academic competence	The main study substance (content *knowledge*) according to the study program concerned. Study of the latest research results according to the field of study, including lecturers' work that is relevant to research interests	Fixed it's a product	study program

In order to achieve master's general skills competency, students who will take the thesis exam have attended national or international seminars as speakers, and have articles that are ready to be published. As a requirement for graduation, students must have an article published in an indexed national journal, Sinta, indexed international seminar proceedings, or an international journal. The student concerned is the main author, the supervisor is the additional author. The student concerned uses Surabaya State University as an affiliate in the published article.

c. S-3 level

The UNESA PhD level is held to prepare graduates who have the main qualifications as doctors with a profile as strong, collaborative, adaptive, innovative and responsible academics or researchers who are able to develop knowledge in certain fields that are appropriate to the study program. Additional qualifications for UNESA PhD graduates are determined by the study program based on an analysis of the study program concerned. In accordance with Level 9 of the KKNI, UNESA S-3 graduates have competencies as formulated in the study program PLO which has been formulated by the study program association or the determination of the Higher Education regarding this matter.

1) Program Learning Outcomes (PLO)

Based on the KKNI, SNDIKTI, and UNESA Vision, the minimum PLO for UNESA doctoral level study programs is as follows.

Table 3.11. PLO UNESA Doctoral Level Study Program

No	PLO realm	PLO
1.	Attitude	1) Able to show religious and national values and national culture, as well as academic ethics in carrying out their duties 2) Showtough character, collaborative, adaptive, innovative, inclusive, entrepreneurial spirit, and professionally and ethically responsible
2.	Skills General	1) Find or develop new theories/conceptions/ideas through logical, critical, systematic and creative thinking based on scientific rules, procedures and ethics 2) Develop yourself sustainably and collaborate
3.	Knowledge	The study program is formulated referring to the study program association and the uniqueness of the UNESA study program
4.	Skills Special	The study program is formulated referring to the study program association and the uniqueness of the UNESA study program

2) Curriculum Structure

The UNESA education doctoral program curriculum structure follows the framework basis according to Table 3.12.

Table 3.12. Basic Framework for the UNESA Doctoral Education Curriculum

Subject	Study Materials	Credit Unit	Levels Determination and Description
Science phylosophy Education (according to study program)	Study of ontology, epistemology, and axiology of science in accordance with the Study Program Study of logic, rhetoric and dialectics in education in accordance with the Study Program	2	Institutional, managed by the study program
Methodology Advanced Research: Qualitative	Case study of method application scientific approach to qualitative and mixed educational fields according to the study program Study of the latest research results according to the field of study, including lecturers' work that is relevant to research interests	2	Institutional, managed by the study program

Subject	Study Materials	Credit Unit	Determination Level and Information
Methodology Advanced Research: Quantitative	Case study of method application scientific approach to quantitative and mixed educational fields according to the study program Study of the latest research results according to the field of study, including lecturers' work that is relevant to research interests	2	Institutional, managed study program
Dissertation Seminar Proposal for Publication of Research Results Scientific	Discovery of knowledge, technology, or arts in the field of education that is relevant to the study program through research with an inter-, multi-, or trans-disciplinary approach	9 3 5 5	Institutional, managed by the study program
Subject related to academic competence	The main study substance (content *knowledge*) according to the study program concerned. Study of the latest research results according to the field of study, including lecturers' work that is relevant to research interests	Fixed right?	study program

Meanwhile, the curriculum structure for non-educational PhD study programs follows the basic framework according to Table 3.13.

Table 3.13. Basic Curriculum Framework for Non-Educational Doctoral Level Study Programs UNESA

Subject	Study Materials	Credit Unit	Determination Level and Description
Science phylosophy (according to product)	Study of ontology, epistemology, and axiology of science in accordance with the Study Program Study of logic, rhetoric and dialectics in study program science	2	Institutional, managed study program

Methodology Advanced Research: Qualitative	Application case studies scientific methods in qualitative and mixed approaches in educational fields according to the study program Study of research results up-to-date according to the field of study, including the work of lecturers	2	Institutional, managed by the Program study programstudies canset Method

Subject	Study Materials	Credit Unit	Determination Level and Information
	relevant to research interests		Study certain types (for example quantitative only) with bob Credit Unit Which Not he same as the framework basicini, according to the scientific characteristics of the study program
Methodology Advanced Research: Quantitative	Application case studies scientific methods in quantitative and mixed approaches in educational fields according to the study program Study of the latest research results according to the field of study, including lecturers' work that is relevant to research interests	2	
Dissertation Seminar Proposal on Scientific Publication Research Results	discovery of knowledge, technology, or art in fields relevant to the study program through research with an inter, multi, or trans-disciplinary approach	9 3 5 5	Institutional, managed by the study program
The course related to academic competence	Main study substance (content knowledge) according to the study program concerned. Study of the latest research results according to the field of study, including lecturers' work that is relevant to research interests	Set Study Program	program studies

The dissertation examination can be carried out if the student has completed the dissertation completion stages, has attended at least two national seminars or one international seminar as a speaker and one article that has received at least a confirmation letter will be published from a reputable international journal manager. As a requirement for graduation, PhD students must have at least 1 article published in a reputable international journal. The student concerned is the main author, the supervisor is the additional author. The student concerned uses Surabaya State University as an affiliate in the published article.

The doctoral study program can propose to award an honorary doctorate degree to someone who contributes to the development of educational theory in a field appropriate to the study program. Further mechanisms regarding this matter are regulated by the UNESA Rector's

Regulations.

Master's and Doctoral Study Programs are given the freedom to adapt MBKM principles in implementing their curriculum. The principles that can be adapted are as follows.

a) The implementation of Recognition of Past Learning (RPL) for Masters and Doctoral students, especially for students who have worked or taken similar learning in the past, refers to 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 certain courses or PLO.

b) It is possible for students to take courses in other Masters/S3 Study Programs at UNESA or other HEIs, provided that: (a) the courses are relevant to the focus of their research interests, (b) the intended study program has the same or higher accreditation as the study program student origin, (c) student GPA above 2.75.

c) Students are allowed to take courses
Internship/internship/other forms containing other relevant courses, with a longer internship duration.

d) Opens the possibility of a double degree for graduates guided by applicable regulations.

e) Punchathe possibility of Distance Learning (PJJ) guided by applicable regulations.

2. Professional Education

Professional education programs are carried out after academic (UNDERGRADUATE PROGRAM) or vocational (D-4) education programs. The Bachelor's program is obtained through higher education with a minimum study load: 144 credits, while the professional teacher program is obtained with a study load of 36 credits with a study period of 1-2 years or a maximum of 3 years after completing the Bachelor's/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 types of mechanisms, namely in-service PPG and pre-service PPG. PPG in office is intended

prospective teacher. This curriculum development guide for PPG is general in nature and opens up opportunities for adaptation to innovative programs from the Ministry of Education and Culture, containing the following general provisions:

1) PPG programs must have a PPG curriculum

a) The PPG curriculum at least contains identity, evaluation of the implementation of the previous curriculum, academic/professional vision, educational mission, objectives, graduate profile, Program Learning Outcomes (PLO), field of study, list of courses/workshop subjects, and learning tools (RPS).

b) Apart from following the PPG PLO determination from the Ministry of Education and Culture, the PPG Study Programcan add PLO which is unique to PPG UNESA based on UNESA's vision and excellence.

c) There are learning stages to train reflective thinking as the basis for the performance of professional teachers which consist of: deepening the material, designing learning based

on ideas for solving problems in class, reviewing design results, peer teaching, comprehensive exams, Field Experience Program (PPL).

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

2) The PPG Prajab curriculum contains a boarding education curriculum

a) The boarding education curriculum contains the vision and mission, goals, curriculum structure, boarding school activity program, assessment of boarding life, mentoring and reflection, as well as regulations, violations and sanctions.

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

b. Other Professional Education Programs

In accordance with the demand for professional staff other than teachers in the educational sector and in the non-educational sector, UNESA can provide professional education for this purpose in accordance with the provisions of the government and the professional association that oversees the professional education. This implementation is based on the needs of stakeholders and does not conflict with applicable regulations.

KKNI level 7 learning achievements, as well as PLO which is unique to UNESA based on UNESA's vision and excellence.

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

In accordance with Republic of Indonesia Government Regulation no. 37 of 2022, UNESA is a PTNBH which has a mandate not only to produce educational staff, but also expert staff in various fields. Curriculum development at UNESA must be directed at being able to achieve UNESA's vision and mission as PTNBH. UNESA PTNBH's vision is to become a "resilient, adaptive and innovative educational university based on entrepreneurship". This vision must be able to be adapted in the formulation of the curriculum for study programs at UNESA.

On the other hand, Presidential Regulation Number 8 of 2012 concerning the Indonesian National Qualifications Framework (KKNI), which is also regulated in SN-DIKTI, raises demands for graduates to have certain qualifications. KKNI regulates the qualifications of 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 this leveling. In the curriculum restructuring process, each study program must be able to formulate a graduate profile to match the level of abilities/skills based on the KKNI provided through learning experiences so that they can enter the world of work appropriately.

The importance of internationalization of higher education is also a consideration for developing the curriculum for study programs at UNESA. To support UNESA's internationalization, study program curriculum development needs to adapt to internationally applicable curricula, for example the Outcome-Based Education (OBE) oriented curriculum. OBE is an approach in the

education system with a clear focus and organizing everything in the education system so that what skills are important for students can be carried out at the end of their learning experience (Spady, 1994). The development of an OBE-oriented curriculum can be explained through the following three models which interact with each other.

1. Outcome-Based Curriculum (OBC), namely curriculum development based on the profile and Learning Achievements of Graduates (PLO) or Learning Achievement Program. Learning includes the selection of learning methods as well as the interaction of lecturers, students and learning resources that refer to the established PLO.
3. *Outcome-Based Assessment and Evaluation*(OBAE), namely assessment and evaluationPLO achievement in order 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 of them 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 are able to develop competencies and knowledge according to the demands of society and the world of work. Education 4.0 is a shift in education as a consequence of the industrial revolution 4.0. Miranda et al. (2021) outlines four core components of Education 4.0, including competencies, learning methods, ICT, and innovative and technology-based infrastructure (see pages 15-16). Furthermore, UNESA as a HR producer needs to consider the 17 TPB which are international commitments to improve human welfare globally. Educational, research and community service activities need to be directed to support the SDGs. Therefore, curriculum development needs to be directed at facilitating students to build knowledge, attitudes and competencies to support TPB.

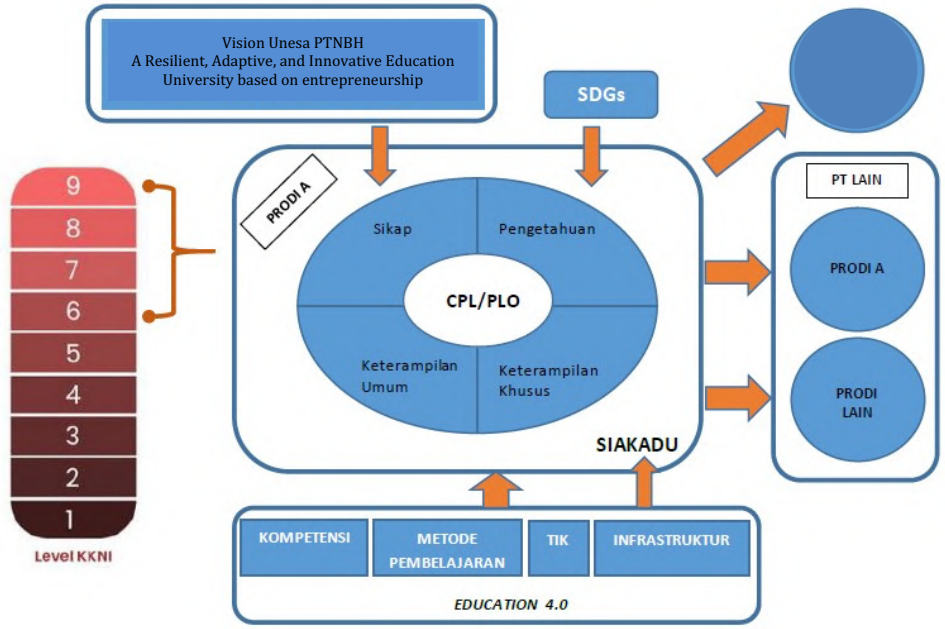
The MBKM policy initiated by the Ministry of Education and Culture in 2020 also needs to be accommodated in the development of the study program curriculum at UNESA as a form of fulfilling the PLO. Through MBKM activities, students are given the opportunity to develop competence, innovation, creativity,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

Guidelines for curriculum development at UNESA based on the foundations outlined above can be briefly visualized in Figure

3.1. The Study Program Curriculum Development Guidelines at UNESA were prepared with the aim of providing guidelines for study program managers to:

1. updating existing curricula or developing new curricula for new study programs;
2. organize and monitor curriculum development carried out by study program;
3. implementing the curriculum;
4. carry out an assessment of PLO achievement

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*Study)*,and/or Comparative Study; Graduate Tracking Study (Tracer Study); and Evaluation of on Going Curriculum;
2. Designing a New Curriculum (Designing New Curriculum);
3. Sanctioning the New Curriculum through Workshops (Evaluation Workshop);
4. Public Test of New Curriculum(Curriculum Publication);
5. Implementation of the New Curriculum (Implementation);

This series of activities can be illustrated as in Figure 3.2.

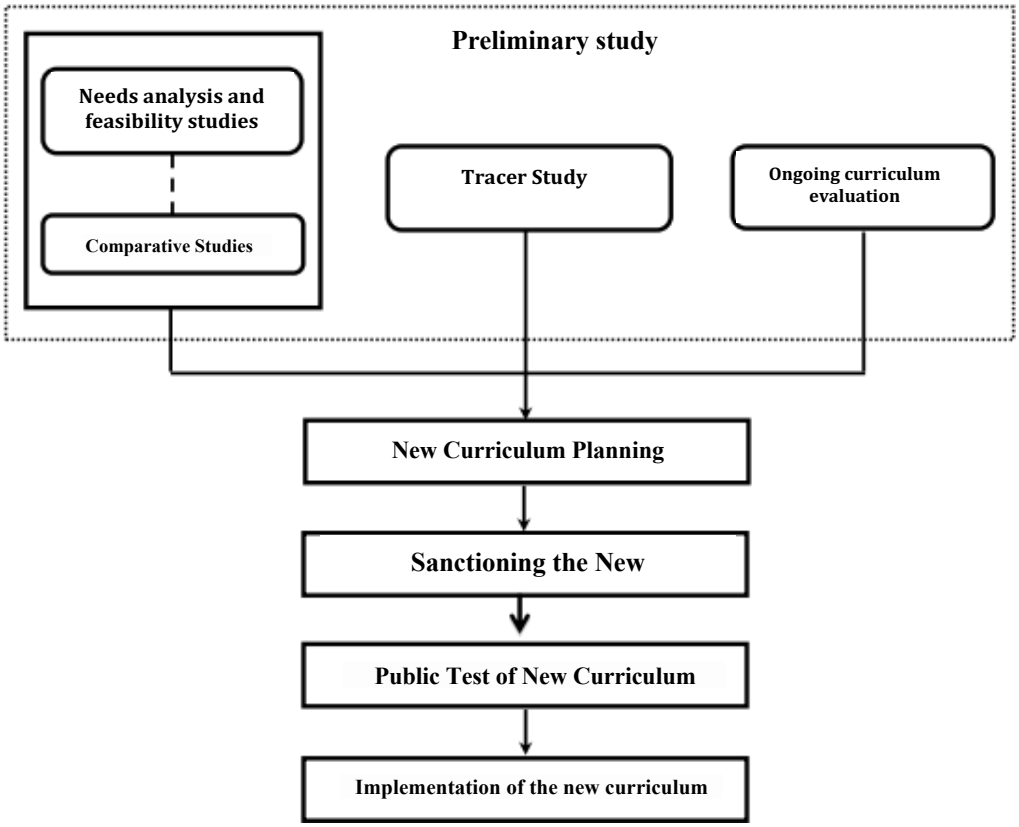


Figure 3.2.UNESA Study Program Curriculum Development Procedures

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 take the form of needs analysis and feasibility studies, and/or comparative studies, graduate tracking studies, and ongoing curriculum evaluations. A summary of these activities is as follows.

a. Needs analysis and studyappropriateness

Needs analysis in curriculum development is a necessary stage in order to obtain the information needed so that the curriculum developed by the study program is truly in accordance with 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 UNESA's level of readiness in developing new study programs or the level of readiness 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. **Studi Comparison (Comparative Study)**

When developing the curriculum, comparative study activities to Benchmark universities for study programs at UNESA are important to carry out. The objectives of the comparative study include the following.

1) Obtain information and empirical descriptions about 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 about lecture learning resources used by study programs at PT Benchmark.
4) Obtaining informationabout institutional development, including: staff development, collaboration, alumni, and others.
5) Obtain information about the position of UNESA (related study program) regarding study programs at PT Benchmark.
6) Gain new experiences in other places (study program at PT Benchmark) thereby expanding the thinking horizons of UNESA residents in order to realize UNESA's vision and mission.

The aspects that are the focus of the comparative study 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 Study

One of the objectives of developing/updating the curriculum is to increase the competency of graduates in order to meet the needs of graduate users. For this reason, graduate tracking activities (tracer study) are needed which aim to:

1) obtain information from alumni regarding the development of competencies needed by the job market as material for curriculum improvement;
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); And
5) to obtain information from graduates regarding the obstacles and problems they face regarding employment, as well as job market needs. Thus, tracer studies need to be carried out on as many respondents as possible including: (a) graduates, both those who are already/not yet working, whose jobs are relevant/irrelevant to the study program competencies; (b) graduate users. Tracer studies are carried out using written or online questionnaires.

d. Evaluation of the Current Curriculum

In curriculum development, evaluation of the curriculum currently in use (on going curriculum) is needed to obtain information regarding the relevance of the current curriculum to the curriculum to be developed. The objectives of curriculum evaluation are:

1) obtain information about the implementation of the current curriculum which includes the implementation, practicality and effectiveness of the curriculum; And
2) obtain data and information related to the current curriculum for decision making regarding improvements in the quality of implementation and for future development of study program curricula at UNESA, including matters that need to be maintained, changed, improved, reduced or added, as well as conformity with developments in science and technology.

Evaluation of the current curriculum takes the form of conformity to the levels required in the KKNI, the essence of the curriculum (current school curriculum for the education curriculum at UNESA), review of learning outcomes or competencies required by the market, and evaluation of the relevance of courses to PLO according to alumni and graduate users. Evaluation was also carried out by experts in a Focus Group Discussion (FGD) which also involved stakeholders such as lecturers, students, alumni, graduate users and other stakeholders. Data and information obtained from this process are used as a basis for designing and determining

2. New Curriculum Design

Designing a new curriculum orUpdating the existing curriculum needs to be carried out through several steps/stages as follows.

a. Self-evaluation through analysis of comparative study results, Analysis of Tracer Study Results, results of Ongoing Curriculum Evaluation and SWOT Analysis of study programs.
b. Determining specific characteristics of study programs and determining Graduate Profiles.
c. Determining the Competencies of study program graduates/Learning Outcomes of study programs and their qualifications.
d. Determination of learning competencies that will be achieved through lectures courses/Learning Outcomes (learning outcomes).
e. Identifying 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.
f. Determination of study materials (based on scientific trees) and inventory of relevant essential concepts.
g. Determination of courses included in study materials and distribution of essential concepts.
h. Estimation and determination of Study Load (credits) and preparation of course descriptions.
i. Preparation of Curriculum Maps.
j. Preparation of Curriculum Structure.
k. Preparation of Semester Learning Plans (RPS).

To carry out design at each stage, the study program must refer to the bookGuide to Preparing the Higher Education Curriculum in the Industrial Era 4.0Independent Campus (Kemdikbud, 2020)https://dikti.kemdikbud.go.id/wp-content/uploads/2020/10/BUKU-PANDUAN-PREPARATION OF HIGHER-EDUCATION-MBKM-CURRICULUM.pdf and Guidebook Merdeka Belajar-Merdeka Belajar on the linkhttps://dikti.kemdikbud.go.id/wp-content/uploads/2020/04/Buku-Guide-Merdeka-Belajar-Kampus-Merdeka- 2020.

3. Sanctioning the New Curriculum Through Workshops

Before being implemented, the new curriculum that has been developed by the study program requires input/sanctioning from many parties, including stakeholders, users and experts. Deep Sanctioning Process

the form of a workshop aims to see coherence between curriculum content. What is meant by coherence is the unity, connectedness and relevance of the curriculum content that has been developed. Workshop participants were grouped into 2 categories, participants from within the study program and participants from external to the study program. Workshop participants are selected to represent as many user elements (students and lecturers), experts and stakeholders as possible using the criteria set by the study program.

4. Public Test/Publication of New Curriculum

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

a. obtain input on the draft study program curriculum and other programs at UNESA;
b. obtain support from all components and stakeholders of study programs and other programs at UNESA for the implementation of the developed curriculum; And
c. get assurance that lecturers, laboratory assistants, technicians and administrative staffstudy programs and other programs at UNESA can implement the curriculum.

Public testing is carried out on a limited basis involving several course lecturers to test the syllabus and tools that have been developed in lectures/peer teaching. After that, the results of the trial observations carried out are discussed in an FGD involving the study program coordinator, 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. Implementation of the New Curriculum

After a public test has been carried out on the new curriculum that has been developed, the study program will implement the curriculum no later than the beginning of the nearest new academic year. In general, the aim 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. The specific objectives of implementing the new curriculum are as follows:

a. determine the direction of study program education in accordance with developments;
b. create an appropriate learning atmosphere or climate

expected;

c. improving the quality of education;

d. produce graduates who are beneficial to society in accordance with the PLO, so that within 3 to 5 years graduates can achieve the graduate profile set by the study program.

Next, the study program coordinator prepares a schedule for implementing the new curriculum for all new students in the study program starting in the first semester and in the following semesters. During implementation, regular observations of lectures are carried out 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 CURRICULUM IMPLEMENTATION

The curriculum is a program prepared and implemented to achieve the vision and mission which are the ideal and conceptual ideals and tasks of UNESA. Curriculum implementation requires signs that function to direct (directive), build (constructive), prevent (preventive) the occurrence of practices outside the established curriculum design, and correct things that are less appropriate (corrective). The scope of curriculum implementation guidelines outlined 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. Forms and Methods of Learning

Implementation of the learning process is a process of interaction between lecturers, students and learning resources in the learning environment. The learning process carried out through curricular activities must be carried out systematically and structured through various courses and a measurable learning load. The learning process is carried out using effective learning methods that are in accordance with the characteristics of the course in fulfilling Program Learning Outcomes. Learning methods that can be used 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 that are accommodated in learning forms. Forms of learning can be: lectures; responses and tutorials; seminar; 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 Undergraduate Program (D-4), Undergraduate Program (S-1), Professional, Masters (S-2), and Doctoral (S-3) education programs must add forms of learning in the form of research, design or development. This form of learning is learning under the guidance of lecturers in order to develop attitudes, knowledge, skills, authentic experiences, as well as improve community welfare and national competitiveness.

This form of community service learning must be given to Applied Undergraduate (D-4), Undergraduate Program (S-1), Professional and Specialist programs. This form of community service learning is a student activity under the guidance of lecturers to utilize science and technology to advance the welfare of society and make the nation's life more intelligent.

This form of learning can be carried out inside or outside the study program.

Implementation of forms of learning outside the study program consists of:

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

Implementation of learning in points 2, 3, and 4 is carried out based on cooperation agreements

between universities or other institutions related to courses that are recognized through a credit transfer mechanism. The learning process outside the study program is an activity that can be determined byministries and/or Higher Education Leadership.

Implementation form. Lectures outside this study program are under the guidance of lecturers and are intended for undergraduate and applied undergraduate study programs outside the health sector. Development of attitudes, knowledge, general skills, and skills specifically obtained through activities intracurricular, co-curricular, and extracurricular. intracurricular activities are the main student activities that are programmed in the form of courses that students must take. Co-curricular activities are mandatory activities that students participate in which aim to improve students' soft skills, including Introduction to Campus Life for New Students (PKKMB), soft skills development, or other programmed activities. Extracurricular activities are activities related to developing talents and interests that students can participate in student activity units inside or outside campus.

B. Learning approaches

Based on the suitability of the characteristics of various learning approaches with the character that UNESA aspires to, student-centred learning approaches, such as mutual cooperation (collaborative), scientific (scientific) and humanitarian (humanistic) approaches are deemed appropriate for use in learning. This is also in line with National Standards learning is 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 goal. The collaborative approach aims to enable students to build their knowledge through dialogue, sharing 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, understand, and respect others. Apart from that, collaborative learning also aims to improve individual abilities in resolving conflict, communicating effectively, and expanding perspectives and new ideas through interaction with other people. Through collaborative learning, individuals also learn to appreciate the roles and contributions of others and improve skills in leading and organizing groups. Collaborative learning is an important skill in the world of work and everyday social life, and is important to develop at every stage of education.

What needs to be noted in collaborative learning activities is that students work together to solve the same problem, not individually solving separate parts of the problem. Thus, during collaboration, students work together to build the same understanding and concepts, and complete each part of the problem or assignment. Therefore, collaborative learning teaches more than just cooperative activities, but also coordination activities and the organization of learning experiences because it involves cooperation in the results of discoveries and results obtained rather than just new learning. Learning with a collaborative approach can also help students build more meaningful knowledge compared to individual learning. In addition, by carrying out collaborative learning activities and projects, students will indirectly learn skills such as how to communicate. These activities are depicted simply in Figure 4.1.

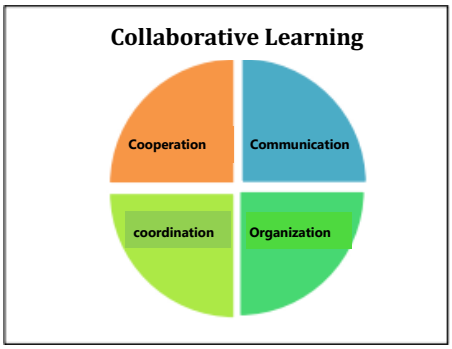


Figure 4.1. Activities in Collaborative Learning

The lecturer's role in the collaborative approach is as a mediator. Lecturers create convenience by arranging the physical environment, as well as learning resources and equipment that can help the learning process. Apart from that, lecturers also provide a supportive social environment, such as grouping students heterogeneously and inviting students to develop social structures that encourage appropriate behavior for collaboration between students. Lecturers also give the task of provoking 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 case method. Team-based project learning can be implemented involving more than one course in one study program or different study programs. The implementation of this collaboration is regulated by each study program.

2. Scientific/Scientific Approach

Learning with a scientific approach is a learning process designed in such a way that students actively construct concepts, laws or principles through the stages of observing (to identify or find problems), formulating problems, proposing or formulating hypotheses, collecting data using various techniques, analyzing data , draw conclusions and communicate “discovered” concepts, laws or principles. Student involvement in each stage makes them agents or actors of learning. The scientific approach is intended to provide students with understanding in recognizing and understanding various materials.

Formulation of definitions, concepts and theoretical understanding based on constructing new learning experiences that they learn. Students do not just receive the finished formula, but experience the occurrence of the formula. In this way, students' cognitive processes are involved not only at the level of knowledge and understanding, but also at higher levels 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 their dimensions. The scientific approach referred to emphasizes the learning achievements of graduates achieved through a learning process that prioritizes a scientific approach so as to create an academic environment that is based on a system of values, norms and rules of science and upholds religious and national values.

In other words, learning with a scientific approach has the following characteristics: (1) student-centered, (2) involves scientific process skills in constructing concepts, laws or principles, (3) involves cognitive processes that have the potential to stimulate intellectual development,

especially higher 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, starting from the simplest starting with a question then ending with an answer. Some variations of scientific approaches include: Problem Based Learning, inquiry-discovery, 5E learning cycle (engage, explore, explain, elaborate, and evaluate), investigation groups, POE (Predict-Observe-Explain), PDEODE (predict -Discuss-Explain-Observe-Discuss- Explain).

3. Humanitarian/Humanistic Approach

The humanistic approach is characterized by an emphasis and appreciation for (1)uniqueness, (2) freedom, and (3) the dignity of students as human beings (Figure 4.3). Students as humans are unique, no one student is the same. This means that it is necessary to develop learning that is tolerant of students' individual uniqueness. The manifestation, for example, is that even though students are required to have the same basic competencies, they are involved in designing the content and learning outline. The second characteristic

Students in the learning process want to be pressured and pressured by others. This means that they want to learn in a psychological condition of freedom, freedom and without pressure. Lectures by lecturers who dominate learning activities without providing opportunities for students to respond to the content of lectures and assignments without negotiating with students reduce this level of freedom. Therefore, the humanistic approach tries to offer various alternative learning activities that students can choose according to their wishes and interests.

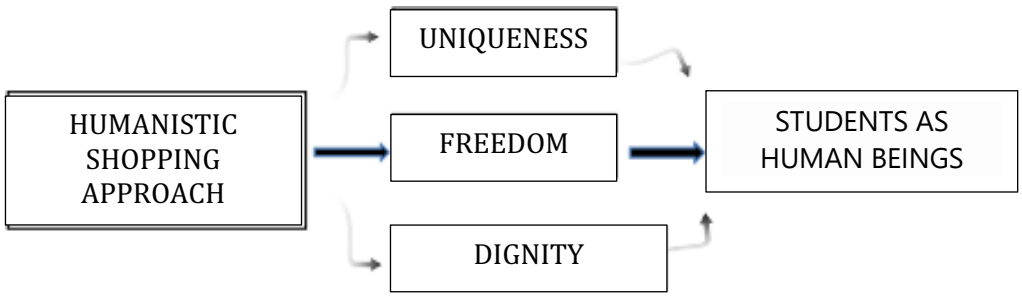


Figure 4.2. Human Dimensions in Humanism

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 is in line with the learning characteristics envisioned by the National Higher Education Standards which state that student-centred learning requires that graduates' learning outcomes be achieved through a learning process that prioritizes the development of students' creativity, capacity, personality and needs, as well as developing independence in searching and discovering. knowledge.

Such learning requires lecturers who respect (appreciative) heterogeneity, and accept

heterogeneity as a wealth that is continuously developed, not subverted or homogenized. For this reason, a lecturer profile that has an attitude of tolerance is also required 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 abilities are hidden (tut wuri handayani), and indeed because of their abilities, when they have to be in front they are able to also set an example for their students. (ing ngarsa sung tuladha). Various BKP MBKM and blended learning are manifestations of humanistic learning.

C. Learning Resources and Learning Media

Learning is essentially a process of interaction between various parties, namely students and other students, students and lecturers, and students and learning resources. In this interaction, communication occurs which involves message traffic from the message source (sender) to the message recipient (receiver) through the message distributor (media). This shows the importance of learning resources and media in the learning process. These two aspects will be explained in this section.

Learning resources are anything: data, people, materials, tools, or media that can be used to obtain information/learning experiences. 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) message: for example information about teaching materials, folk tales, fairy tales, or sagas; (c) materials: such as audio cassettes, recordings, films, or video recordings; (d) environment: such as a lab room, school yard, pool, 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 students themselves. Learning resources provide students with the information, knowledge, and skills necessary to acquire and master new concepts and skills. The effectiveness of learning resources depends on how well they are designed, their attractiveness, and how well they meet students' needs.

Learning media is defined as a channel for conveying messages (Bovee, 1997). AECT (2000) formulates that the substance of learning media is a form of channel used to channel messages, information or learning materials to message recipients or students. Media

Learning is various types of components found in the student environment that can stimulate students to learn.

Experts try to compile taxonomies and classify learning media on certain grounds. 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 from real or actual objects such as people, incidents/events, objects or certain objects.
2. Simulation: imitation of a situation that is deliberately carried out to approach/resembling an actual event or situation. For example, the behavior of a driver while driving is shown on a video screen or film screen.
3. Model: namely an imitation of the original object in three dimensions.

4. Motion picture: film or video tape from shooting/recording actual objects or events, as well as film from shooting images (animation).
5. Silent films, namely in the form of films or moving images but without sound.
6. Still portraits: portraits taken of various objects or events which may be presented through books, filmstrips, slides or magazines/newspapers.
7. Sound recording (audio recorder): namely sound recordings that use verbal language or musical sound effects (sound effects).
8. Graphic presentations: charts, graphs, maps, diagrams, paintings, posters, cartoons and caricatures.
9. Verbal presentation: print media, words projected through frame film (slides), transparencies, prints on whiteboards, magazines and sticky boards.
10. Program: also known as programmed teaching, namely a sequence of information, whether verbal, visual or audio, which 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 method of presentation, learning media is 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
Audio	CD, live presenter, podcast
Visual	Pictures, photos
Videos	DVDs, documentaries, streaming videos
Manipulative	Real or virtual objects
Person	Teacher, expert

The use of electronic media and ICT in education has grown rapidly, known as e-learning. In this innovation, all forms of educational technology are used in the teaching and learning process. This kind of learning resource is so famous that it has many synonyms such as multi-media learning, technology-enabled 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 emphasis. All types of media and information presentation models are used in e-learning such as text, audio, images, animation, and so on. E-learning can occur in the classroom or outside the classroom.

Learning will be more meaningful if it takes place contextually, using real environmental context as a source of information. Dewey argued that schools are society's laboratories. To prepare students to live successfully in society, this can be done by giving students real experience, for example by bringing environmental problems into the classroom, so that students can practice solving them. In other conditions, students are invited into the environment to learn and find information in a real context. Based on this description, it is impossible to eliminate the presence of media in learning.

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 convey all learning messages. Lecturers must choose the media

which really fits the message to be conveyed.

There are several things that need to be considered and considered when choosing learning media, namely:

a. Objective: The media selected should support the formulated learning objectives. For psychomotor goals that require movement skills, the best media is modeling.

b. Appropriateness: If the material to be studied is the important parts of objects, then images such as charts and slides can be used. If what is studied are aspects related to movement, then film or video media will be more appropriate. The use of varied materials produces and enhances academic achievement.

c. Student situation: Media will be used effectively if it does not depend on inter-individual differences between students. For example, if a student is classified as an auditive/visual type, students who are classified as auditive can learn using visual media. Students who are classified as visual can also learn using auditive media.

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

e. Efficiency: Costs incurred to acquire and use media,should be truly balanced with the results to be achieved.

f. Practicality: The media chosen must be easy to operate, no
complicated, and does not have elements that endanger the user. Media that is too heavy with many parts that have to be aligned will certainly take up a lot of learning time.

2. Stages of Learning Media Development

There are many models of learning media development. One of these media development models is the ASSURE model (Smaldino et al., 2014). The ASSURE model has six stages, including: Analyze learner (analyzing student characteristics), State standard objectives (formulating learning objectives), Select strategies, technology, media, and materials (choosing strategies, technology, media and learning materials), Utilize technology, media, and *require learner participation*(encouraging student involvement), and Evaluate and revise (evaluate and revise). Each of these stages is described as follows.

a. *Analyze learner*. The first step in planning learning is identifying and analyzing the characteristics of students involved in learning. This information will guide decision making for designing learning. 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 to formulate specific learning standards and

objectives according to the existing curriculum and technology standards. A good learning objective states that the student is the target, the action (behavior) that will be demonstrated, the conditions under which the behavior or performance will be observed, and the extent to which new knowledge or skills must be mastered. Conditions on objectives include the use of technology or media to support learning and assess achievement of standards or learning objectives.

c. *Select strategies, technology, media, and materials*. After analyzing student characteristics and determining 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 planning teaching by utilizing technology, media and materials to achievelearning objectives. The steps taken at this stage are: preview of technology, media and materials; prepare technology, media and materials; prepare the environment; prepare students; and provide learning experiences.

e. *Require learner 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 formally assessed. Feedback can come from lecturers, computers, peers, or self-evaluation.

f. *Evaluate and revise*. This stage aims to evaluate the impact of implementation 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.

1) Benefits of Media in the Learning Process

As a component of the instructional system, media has valuespractical abilities, including (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. carrying 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, not observable by the naked eye (viruses, bacteria, molecules, metal structures);

e. observing movements that are too fast (a beautiful jump or a slow-moving wheel spinning), or movements that are too slow (a speeded-up flower blooming);

f. allows students to interact directly with the environment;

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

h. arouse student motivation;

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

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

D. Assessment of Learning Processes and Outcomes

As is known, assessment is the interpretation and meaning of data and information collected through the assessment process. Learning assessment is the process of collecting quantitative and qualitative data about student learning processes and outcomes. An example of an assessment process is giving a learning outcomes test followed by scoring. This score is interpreted and interpreted as an assessment. Meanwhile, learning evaluation is the process of making decisions about processes and results

without assessment. The data used as the basis for decision making must be comprehensive, complete, continuous, and collected using valid and reliable instruments, and implemented according to correct assessment principles.

Assessment of learning outcomes by lecturers is carried out to monitor the process, learning progress, and improve student learning outcomes on an ongoing basis. Learning outcomes assessment has a role, among other things, in helping students find out learning achievements. Based on the assessment of learning outcomes, information can be obtained about the weaknesses and strengths of the learning and learning that has been implemented. By knowing their weaknesses and strengths, lecturers and students have clear direction regarding what needs to be improved and done in further teaching and learning. The results of the assessment 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. This is in accordance with the basic teaching model which places assessment as one of the main components, as shown in Figure 4.x.

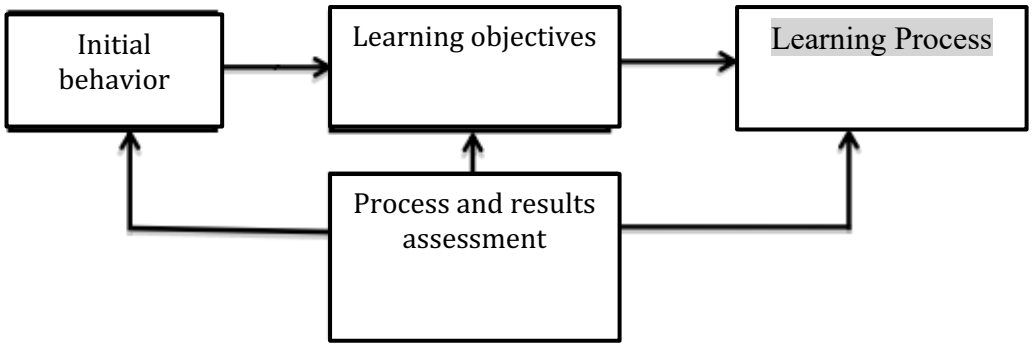


Figure 4.3. The Position of Assessment in Learning

Based on this, each UNESA lecturer is tasked with (a) developing valid assessment instruments in accordance with the final competencies/indicators/abilities to be measured; (b) carry out the assessment process seriously in accordance with the principles: educational, open/transparent, thorough/comprehensive, integrated with learning activities, objective and systematic, continuous, fair and criteria-based. UNESA has two assessment standards, namely: Academic Assessment and Non-Academic Assessment, each of which is described as follows.

1. Academic Assessment

a. Assessment Principles and Objectives

Academic assessment includes student learning processes and outcomes carried out using

principles in accordance with the National Higher Education Standards (Article 22 paragraph 1), namely educational, authentic, objective, accountable and transparent carried out in an integrated manner. Each of these principles is described as follows.

1) Educative principles are assessments that motivate students to be able to improve their planning and learning methods and achieve graduate learning outcomes.
2) The authentic principle is an assessment that is oriented towards a continuous learning process and learning outcomes that reflect students' abilities during the learning process.
3) The objective principle is an assessment that is based on standards agreed between the lecturer 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 in accordance withclear procedures and criteria, agreed upon at the start of the lecture, and understood by students.
5) The transparent principle is an assessment whose procedures and assessment results can be accessed by all stakeholders.

The targets of academic assessment at UNESA include learning outcomes students in the classroom/laboratory/workshop/studio/field, working on assignments, and preparing final assignments, theses, theses or dissertations. Each assessment target is described as follows.

1) The targets for assessing the learning outcomes of students participating in courses 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 work/reports/artwork/design, (4) affection, for example the willingness to cooperate and discipline.
2) Targets for assessing student learning achievements in progress
The assignments of a course consist of: (1) up-to-date references and correctness of concepts, (2) depth of content, use of language and report writing structure, (3) quality of work results in the form of written work/artwork/design, and (4) participation /student performance. final assignment, thesis, or dissertation, consisting of: (1) mastery of knowledge, attitudes and skills and their use in preparing the final assignment, thesis, thesis or dissertation, (2) depth of content, use of language and structure of writing the final assignment, thesis, thesis or dissertation, (3) creativity in presentation, (4) scientific truth and originality, (5) application of applicable academic norms, and (6) ability to defend a thesis, thesis or dissertation.

b. Assessment Techniques, Instruments, and Approaches

1) Assessment Techniques
Assessment of learning outcomes is carried out in the domains of attitudes, knowledge and skills. The assessment techniques for each assessment domain are explained 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 social environment, natural surroundings, and the world and its civilization.

b) EvaluationThe domain of knowledge is carried out through various forms of written tests and oral tests which technically can be carried out directly or indirectly. Directly, this 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) Skills domain assessment through performance assessments which can be held through practicums, practicals, simulations, field practice, and others that enable students to improve their skills and/or product assessment when students make a particular product.

d) Portfolio assessment is a continuous assessment in the realm of attitudes, knowledge and skills which is based on a collection of information that shows the development of student learning achievements in a certain period. This information can be in the form of student work from the learning process which is considered the best or masterpiece achieve learning outcomes. Types of portfolio assessment are as follows:

- Development portfolio, contains a collection of student work results that show progress in achieving their abilities in accordance with the learning stages that have been undertaken.
- The showcase portfolio contains students' work that shows their best learning performance.
- Comprehensive portfolio, containing the student's overall work results 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 assessmentis an assessment in the realm of knowledge, skills, and attitudes carried out on student participation in group discussion activities, class discussions, role playing, case analysis, asking questions, presenting arguments, and/or responding to questions.

2) Assessment Instrument

a) Forms of assessment instruments include tests and non-tests. Forms of test assessment include (1) objective tests: filling in, matching, multiple choice; (2) subjective tests: free description, short description), (3) Performance tests. Forms of non-test instruments 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 grading student learning performance results. The rubric consists of dimensions or aspects that are assessed and criteria for student learning outcomes or indicators of student learning achievement. The purpose of assessment using a rubric is to clarify the

dimensions or aspects and levels of assessment of student learning achievements. Apart from that, it is hoped that the rubric can be a driving force or motivator for students to achieve their learning achievements. Rubrics can be comprehensive or generally applicable and can also be specific

3) Assessment Approach

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

c. Implementation of assessment

The assessment is carried out in accordance with the learning plan and can be carried out by:

1) teaching lecturer or team of teaching lecturers;
2) a teaching lecturer or a team of teaching lecturers including students;
3) teaching lecturer or team of teaching lecturers including relevant stakeholders;
4) supervising lecturer or a team of supervising lecturers including external assessors from different universities, specifically for assessing doctoral program dissertations.

The assessment implementation mechanism includes four stages as presentedin Figure 4.4.

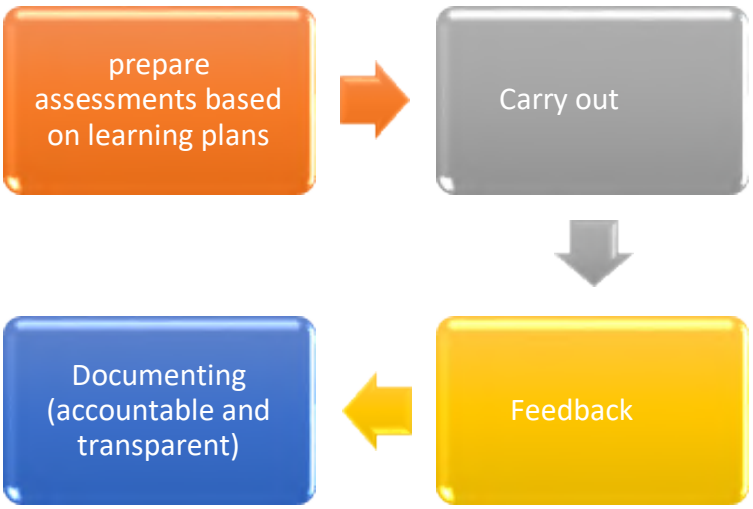


Figure 4.4. Assessment Implementation Mechanism

The student's final score comes from all assessment components including:

1. knowledge assessment (40%),
2. skills assessment (50%), and

obtained from all forms of assessment (quizzes, assignments, exams, participatory assessments and/or completion of product projects assigned by lecturers in accordance with the RPS). The assessment system for determining the final grade uses the Benchmark Assessment (PAP). The score for each assessment component is expressed as a number in the range 0 – 100. The weight of each assessment component is determined based on the level of complexity, complexity, depth or

complexity in competency formation. For example, in courses that apply project-based learning, a minimum of 50% of the weight of the final grade is determined based on the project assessment. In courses that apply the case method, a minimum of 50% of the final grade weight is determined based on participatory assessment.

UNESA holds two types of course exams simultaneously, namely subsummative exams and summative exams. The description of each test is presented as follows.

1) Subsummative Exam

- Subsummative exam assessments are carried out to measure mastery of certain final abilities (attitudes, knowledge and skills).
- Done approximately after 50% of the study material has been taught.
- Done at least once every 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 abilities you want to achieve.

2) Summative Exam

- Summative exam assessments are carried out to measure mastery final abilities (attitudes, knowledge and skills).
- Carried out after all study material has been taught.
- Conducted once every semester (after the 15th meeting).
- This is done in the form of a written exam, but with certain considerations it can also be done in the form of a non-test, giving assignments, or even an oral test that is tailored to the competency you want to achieve.

d. Assessment Reporting

Assessment of student learning achievements in a subject as conclusion values are converted into numerical values 0 (zero) to 4 (four) and the letters A, B, C, D, and E using the conversion as shown in Table 4.2. The assessment reporting is carried out through an information system known as SIAKADU.

Table 4.2. Letter Values, Intervals and Numerical Values that apply at UNESA

Letter	Intervals	Numbe r
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 the results of student learning achievement assessments are realized in the form of: a) the results of the assessment of learning achievements in each semester, which are expressed in the Semester Achievement Index (IPS), and b) the cumulative assessment results for the semesters that have been taken, which are expressed in the Cumulative Achievement Index (GPA). The number of credits that a student can take 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 that students can take

IPS obtained in the previous semester	Credits that can be taken in the following semester
	D4/UNDERGRADUATE 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 completed the entire learning load determined within a certain period of time and have achieved learning outcomes shown in Table 4.4.

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

No	Program	Study load (CREDIT UNIT)		Most study period long (academic year)	GPA minimum
		Minimum	Maximum		
1	Bachelor Applied/Bachelor	144	160	7	2.00
2	Profession	24	40	3	3.00
2	Masters	36	48	4	3.00
4	Doctor	42	50	7	3.00

The study program can determine other conditions for student graduation according to the learning outcomes that have been determined.

Student study loads are stated in Semester Credit Units (CREDIT UNIT) and effective learning is carried out for 16 weeks in each semester including mid-semester exams and final semester exams. One academic year consists of two semesters, namely Odd Semester and Even Semester. However, study programs can hold intermediate semesters which aim to facilitate accelerated completion of student studies, especially for students in the 12th and 13th semesters.

The intermediate semester is held 16 (sixteen) face-to-face meetings over a period of at least 8 (eight) effective weeks which are carried out in the form of lectures, including the intermediate

mid-semester exam and the intermediate final exam. The study load for students in a semester is a maximum of 9 (nine) credits. The intermediate semester aims to provide opportunities for students in the 12th and 13th semesters to improve their grades in courses taken in previous semesters. The intermediate semester is held at the end of the Even Semester and can only be attended by active students by paying the intermediate semester fee according to the credits taken. The study load in the intermediate semester is 1 credit which is equal to 370 minutes per week per semester. The implementation of the intermediate semester is regulated by the study program with the minimum number of participants being 20 students.

Graduating students from Applied Bachelor's, Bachelor's, Professional, Master's or Doctoral Programs can be given a satisfactory, very satisfactory or commendation rating if they achieve a certain GPA as shown in Table 4.5.

Table 4.5.GPA Range and Program Graduation Predicate

Degree program Applied (D4) and Bachelor (UNDERGRADUATE)	Program Profession andMaster (S2)	Doctoral Program (S3)	Predicate
3.51 – 4.00	3.76 – 4.00	3.76 – 4.00	With compliments (cum laude)
3.01 – 3.50	3.51 – 3.75	3.51 – 3.75	Very Satisfying
2.76 – 3.00	3.00 – 3.50	3.00 – 3.50	Satisfying

Determination of the Commendation graduation predicate for the Applied Undergraduate and Undergraduate Programs is carried out with the maximum study period being 4 years.

2. Nonacademic Assessment

Non-academic assessment is a form of recognition of student achievements in non-academic fields when studying at the Bachelor or Applied Bachelor level at UNESA. An explanation of this assessment is presented as follows.

a. Assessment Objectives

Non-academic assessment of students at UNESA aims as follows.

1) Instilling a scientific attitude, stimulating creativity and innovation, and developing dignified character;
2) Improve students' abilities in team work, communication, management skills, organization and leadership;
3) Increase student involvement and participation in student activities;
4) Providing recognition and appreciation for student activities and achievements;
5) Providing documents accompanied by authentic evidence about all activities and all student achievements that are useful for stakeholders when entering the world of work.

b. Forms, Techniques, Instruments and Assessment Approaches

1) Form of Assessment

Assessment of students' non-academic activities is carried out in the form of validation by academic advisors on evidence of relevant activities that have been reported by students using the format and instruments provided. Non-academic assessment components at UNESAconsists of 5 activity elements, namely: organization and leadership, reasoning and knowledge, interests, talents, hobbies and welfare, community service, and other areas of activity.

2) Assessment Techniques

The student non-academic assessment technique uses a portfolio assessment which records all activities (reasoning and knowledge, interests and talents, organization and leadership, and social awareness) with the following mechanism.

a) Every semester, students together with academic advisors plan non-academic activities at the same time as advising/study planning time.

b) Every semester, students are required to submit an assessment of non-academic activities to the academic advisor regarding the activities that have been realized.

c) Those who have the right to assess students' non-academic activities are academic advisors by paying attention to evidence or certificates that are considered valid and accountable.

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

e) Academic advisors also have the right to assess irregular activities. The irregular activities referred to are activities whose existence is incidental, 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 Activities Technical Manual) through activities: reasoning and knowledge, interests and talents, organization and leadership, and social awareness.

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

3) Assessment Instrument

Students' non-academic aspects are assessed using the following assessment instruments.

a) Achievement Result Card (KHP) form. This card contains the activities that students have carried out during one semester.

b) Student Activity Transcript (TKM). Student Activity Transcripts will be issued by academic services when students are declared to have passed the judiciary.

4) Assessment Approach

Non-academic assessment at UNESA uses the Benchmark Assessment Approach (PAP) by applying point weights that must be met by students. Benchmarks for non-academic assessment are set out in the Non-Academic Assessment System Implementation Guidelines.

E. Semester Learning Plan (RPS)

The learning process is intended to facilitate students to achieve the predetermined PLO. To achieve these goals, learning requires good and systematic planning and preparation. Article 12 paragraph (1) Minister of Education and Culture Regulation no. 3 of 2020 outlines that learning process planning is prepared for each course in the form of RPS. On this basis, UNESA made a policy that lecture planning in the form of RPS is developed by each lecturer both individually and in expertise groups who teach and develop courses within the curriculum structure.

1. Understanding Semester Learning Plan

Semester Learning Plan is an outline lecture plan that will be carried out for one semester. According to Article 12 paragraph (3) Minister of Education and Culture Regulation no. 3 of 2020, the Semester Learning Plan must contain at least:

a. name of study program, name and course code, semester, credits, name of teaching lecturer;
b. PLO charged to courses;
c. final capabilities planned at each learning stage to meet graduate learning outcomes;
d. study materials related to the abilities to be achieved;
e. learning methods;
f. the time provided to achieve each capability learning stage;
g. student learning experiences which are manifested in descriptions of assignments that must be carried out by students during one semester;
h. criteria, indicators and assessment weights; And
i. list of references used.
j.

2. Course Semester Plan Development Principles

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

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

b. The actual principle shows the scope of indicators, study materials, activities

Lectures and assessment systems pay attention to the latest developments in science, technology and art. Therefore, the RPS must be reviewed and adjusted periodically.

c. The contextual principle means the coverage 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 are functionally interconnected in realizing the final capability.

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

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

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

o develop a love of reading, comprehension of various reading materials, and expression in various forms of writing.

d. Provide feedback and follow-up. The RPS is implemented in such a way that it includes a program of providing positive feedback, reinforcement, enrichment and remediation.

e. Connectedness and integration. RPS implementedby paying attention to the relationship and integration between CLO (course learning outcomes), final outcome, study materials, lecture activities, learning achievement indicators, assessments, and learning resources in one complete learning experience.

f. Applying information and communication technology. RPS is implemented by considering the application of information and communication technology in an integrated, systematic and effective manner according to 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 in accordance with the name stated on the study program establishment permit issued by the Ministry;
(2) document code to indicate changes made to the developed RPS;
(3) course name;
(4) course code;
(5) the class of courses selected is based on the type of course, including: National Curriculum Compulsory Subjects, Institutional Curriculum Compulsory Subjects, Institutional Elective Subjects, Study Program/Faculty Curriculum Compulsory Subjects, or Study Program Elective Courses;;
(6) weight of courses in credits and ects;
(7) semester indicating when the RPS was implemented;
(8) date of preparation of the RPS;
(9) authorization or approval is written with the name of the person giving the approval, namely the study program coordinator;
(10) names of RPS developer lecturers;
(11) name of course family coordinator;
(12) name of the study program coordinator;

b. Learning outcomes, which contain:
(1) PLO study programs charged for related courses which consist of components of attitude, general skills, special skills and knowledge;
(2) Course Learning Outcomes (CPL) is a description of PLO that is formulated more specifically for related courses;
(3) The final ability of each learning stage (Sub-CLO) is the ability to be achieved at each learning stage and is a description of the CLO;

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

d. TPB/SDGs supported in the learning process;

e. Study Materials or Learning Materials, contains a detailed list of study materials or materials that will be studied in related courses. Learning materials can be presented in the form of textbooks, teaching modules, diktats, practical 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 courses. It is recommended that relevant learning sources from the research results of teaching lecturers be written in this section to enrich the learning process.

g. Name of the lecturer in charge of the course, filled in with the list of lecturers in charge of the

course and there can be more than one if the learning is carried out by a teaching team;

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

i. Learning process matrix containing:

(1) Week 1 indicates when each final skill is taught,

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

(3) Assessment grid, which contains:

- Indicator assessment is specific statemen and measurable which identify the ability or performance of student learning outcomes accompanied by evidence,
- Assessment criteria are benchmarks used as a measure or measure of learning achievement in assessments based on predetermined indicators. Assessment criteria are guidelines for assessors so that assessments are consistent and unbiased in the form of scoring guidelines or rubrics. Criteria can be quantitative or qualitative,
- Assessment techniques in the form of tests or non-tests (observation, performance assessment, product assessment, portfolio assessment),
- The assessment weight is the percentage of the success assessment for each sub-CPMK achievement against 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 take the form of lectures, responses, tutorials, seminars, practicums, studio practice, workshop practice, field practice, research, community service, thematic KKN, student exchange, internship or work practice, teaching assistance, humanitarian projects, entrepreneurial activities, studies /independent projects, and/or other equivalent forms of learning,
- Learning methods can take 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 mixed (blended learning),
- Student assignments consist of student learning activities in the form of assignments to achieve final abilities at each learning stage. In this section, the tasks that students must complete during one semester are briefly described.
- The estimated time for each learning activity is written based on the weight of the course 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 Learning Form

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, containing 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 at the beginning, 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, for each course one RPS is developed to provide an overview of the lectures for that course during one semester. The steps for developing RPS are as follows.

a. Fill in the Couse Semester Plan identity

b. **Identify study program PLO** charged in related courses, including attitudes, general skills, special skills and knowledge. The determination of the PLO charged for courses is agreed upon by the curriculum team and study program coordinator, and is stated in the study program curriculum document. Examples of study program PLOs charged for research methodology courses in undergraduate programs are presented in Table 4.10.

c. **Formulate Course Learning Outcome** or Course Learning Outcomes (CLO) which are more specific based on the PLO charged for the related course. The process of determining CPMK can be done using 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 study program's PLO. CPMK is used as an assessment guide in determining the graduation of students who program certain courses. CPMK is formulated in verb form accompanied by a scope of knowledge, skills and/or attitudes that reflect aspects of the content of the CPMK. Example of CPMK formulation for courses Research methodology in undergraduate programs is presented in Table 4.7.

Table 4.7. Study Program PLO charged to the Research Methodology Constitutional Court

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.CLO formulation 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. **Formulating final capabilities (Sub-CPMK)**. Each CPMK is further broken down into several final capabilities (Sub-CPMK) which are narrower in scope. Final abilities are a combination of integrated knowledge, skills and attitudes needed by someone to carry out a particular unit of study material/task. In general, people can be said to be competent in certain study material/work/tasks if that person has the minimum knowledge, skills and work attitudes that can be used to complete the task.

a number of final capabilities that build the CPMK. The final ability formulation uses action verbs from either the cognitive, affective or psychomotor areas and is composed of behavioral elements and the scope of course content (references). A good Sub-CPMK formulation uses the SMART principle (Specific, Measurable, Achievable, Realistic, and Time-bound). The Sub-CPMK formulation must clearly and specifically describe the desired abilities (specific), have target learning outcomes that can be measured (measurable), the desired abilities can be achieved by students (achievable), in the form of abilities that are realistic (realistic) and can be achieved within time. which corresponds to the credit weight (time-bound). An example of the final capability formulation for a research methodology course in an undergraduate program 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 jawah dan etika. (CPMK-1, CPMK-3, CPMK-4)

(Source: Junaidi et al. (2020))

e. **Describe Sub-CPMK into indicators**. So that the achievement of the Sub-CPMK (final capability) can be measured, the Sub-CPMK is first described as an assessment indicator. The translation of Sub-CPMK into assessment indicators 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-behaviors. Material analysis is carried out by detailing the lecture material that the formulation of indicators should consist of behavior (operational verbs) and references or course content. Indicators serve as a guide in selecting lecture materials and strategies, forms and assessment instruments. An example of the breakdown of Sub-CPMK into

assessment indicators in research methodology courses in undergraduate programs is presented in Table 4.10.

Table 4.10. Example of Formulation of Sub-CLO Assessment Indicators in Research Methodology Course

Sub-CLO	Assessment Indicators
Sub-CPMK 1: able to explain knowledge, knowledge, philosophy and ethics, as well as plagiarism in research	1.1 Accuracy in explaining knowledge, science and philosophy. 1.2 Accuracy in explaining the meaning of ethics in research. 1.3 Accuracy in explaining the meaning of plagiarism, preventing plagiarism, and the consequences of plagiarism.
Sub-CPMK 2: capable explains the stages of qualitative and quantitative research methodology	2.1 Accuracy differentiates understanding and characteristics of qualitative research and quantitative. 2.2 Accuracy in explaining the stages methodology qualitative and quantitative research.
Sub-CPMK 3: capableformulate research problems and hypotheses using quality, measurable and reference sources valid	3.1 Accuracy in organizing systematics and abstracting journal articles. 3.2 Accuracy and suitability of formulating descriptive, comparative, associative and comparative-associative problems and hypotheses.

(Source: Junaidi et al. (2020))

f. **Determine study materials/lecture materials**. The choice of study material must truly be material that is relevant and supports the achievement of final abilities. For this reason, the selection of study materials can be done by referring to the formulation of assessment indicators, especially the phrases behind the verb 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 Selection of Study Materials based on the Formulation of Assessment Indicators in the Research Methodology Constitutional Court

Indicator formulation	Study Materials
1.1 Accuracy of explaining about knowledge, science, and philosophy.	Definition of knowledge, knowledge and philosophy, scientific approach and non-scientific, science assignments, and research.
1.2 Accuracy in explaining meaning ethics in research.	Ethics in research.

1.3 Accuracy in explaining the meaning of plagiarism, preventing plagiarism, and consequences of plagiarism.	Plagiarism in research.
2.1 Accuracy in distinguishing the meaning and characteristics of qualitative and quantitative research.	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.
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 relevant learning strategies to achieve the final abilities formulated**. There are indicators that can only be taught in one way, so like it or not, lecturers have to choose that method as a learning strategy. For example, skilled in making research proposals. The strategy chosen is the practice of making a research proposal. Meanwhile, indicators explaining knowledge, science and philosophy can be achieved through various strategies, such as reading assignments, discussions, listening to explanations and so on. If 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. **Selecting learning media/sources**. Media is a channel for conveying messages. Therefore, the media chosen is adjusted to suit learning resources that (a) have a level of relevance and suitability to the indicators; (b) paying attention to the up-to-dateness and correctness of the concepts offered. Apart from that, learning sources can also be people who are experts in their field.

i. **Formulate lecture activities/learning experiences**. The lecture activities written in the RPS are not detailed lecture scenarios but only the main activities that are planned to be carried out. The 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 the formulation of lecture activities in a research methodology course in an undergraduate program is presented in Table 4.12.

Table 4.12. Example of Lecture Activity Formulation in Research Methodology Course

Indicator	Learning Activities/Assignments
1.1 Accuracy of explaining about knowledge, science, and philosophy.	Arrange a summary in form papers about understandingknowledge, science, and philosophy with examples.
1.2 Accuracy of explaining meaning ethics in research.	Compiling an ethics case study paper in research related to plagiarism.
1.3 Accuracy of explaining the meaning of plagiarism, preventing plagiarism, and consequences of plagiarism.	

As mentioned above, if there are indicators that can be achieved through several types of lecture activities, lecture activities should be chosen that more intensively involve students. 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 both physically and mentally. Compiling a summary in the form of a paper by students really 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 help students achieve the expected learning outcomes. An example of a Student Assignment Plan (FOLLOW UP PLAN) for a research methodology course in an undergraduate program is presented in Table 4.13.

Table 4.13. Example of FOLLOW UP PLAN in COURSE Research Methodology

LOGO	NAMA PERGURUAN TINGGI FAKULTAS DEPARTEMEN / JURUSAN / PROGRAM STUDI				
RENCANA TUGAS MAHASISWA					
MATA KULIAH	Metodologi Penelitian (S1)				
KODE	TF141361	**sks**	2	**SEMESTER**	6
DOSEN PENGAMPU	Dr. Ir. Syamsul Arifin, MT.				

BENTUK TUGAS

Final Project

JUDUL TUGAS

Tugas-8ABC Final Project: Menyusun proposal penelitian dan mempresentasikan secara mandiri.

SUB CAPAIAN PEMBELAJARAN MATA KULIAH

Sub-CPMK-6: mampu merancang penelitian dalam bentuk proposal penelitian TA & mempresentasikan nya dengan tanggung jawab dan etika. [C6,A3,P3] (CPMK1, CPMK3, CPMK4).

DISKRIPSI TUGAS

Tugas ini bertujuan agar mahasiswa mampu untuk menyusun proposal penelitian sesuai dengan standar internasional. Mahasiswa belajar membaca dan meringkas artikel jurnal sesuai dengan tema penelitian yang diinginkan. Kemudian merumuskan permasalahan, dan membuat hipotesis, menyusun kerangka penelitian, dan akhirnya membuat proposal penelitian. Kemudian mahasiswa mendesain slide presentasi proposal dan mempresentasikannya untuk meningkatkan kemampuan komunakasi ilmiah dalam bentuk presentasi.

METODE PENGERJAAN TUGAS

1. Memilih dan mengkaji minimal 10 journal nasional & internasional sesuai bidang yang diminati;
2. Membuat ringkasan dari minimal 10 journal yang telah dipilih;
3. Menentukan judul proposal penelitian;
4. Merumuskan masalah dan hipotesis penelitian
5. Memilih dan merancang metodologi penelitian;
6. Menyusun proposal penelitian;
7. Menyusun bahan & slide presentasi proposal penelitian;
8. Presentasi proposal penelitian di kelas.

BENTUK DAN FORMAT LUARAN

a. Obyek Garapan: Penyusunan Proposal Penelitian Skripsi (Tugas Akhir)

b. Bentuk Luaran:

1. Kumpulan ringkasan journal ditulis dengan MS Word dengan sistimatika penulisan ringkasan journal, dikumpulkan dengan format ekstensi (*.rtf), dengan sistimatikan nama file: (**Tugas-9-Ringkasan-no nrp mhs-nama depan mhs.rtf**);
2. Proposal ditulis dengan MS Word dengan sistematika dan format sesuai dengan standar panduan penulisan proposal, dikumpulkan dengan format ekstensi (*.rtf), dengan sistimatikan nama file: (**Tugas-9-Proposal-no nrp mhs-nama depan mhs.rtf**);
3. Slide Presentasi PowerPoint, terdiri dari : Text, grafik, tabel, gambar, animasi ataupun video clips, minimun 10 slide. Dikumpulkan dlm bentuk *softcopy* format eks:ensi (*.ppt), dengan sistimatikan nama file: (**Tugas-9-Slide-no nrp mhs-nama depan mhs.ppt**);

INDIKATOR, KRETERIA DAN BOBOT PENILAIAN

a. Ringkasan hasil kajian journal (bobot 20%)

Ringkasan journal dengan sistematika dan format yang telah ditetapkan, kemutakhiran journal (5 tahun terakhir), kejelasan dan ketajaman meringkas, konsistensi dan kerapian dalam sajian tulisan.

b. Proposal Penelitian (30%)

1. Ketepatan sistematika penyusunan proposal sesuai dengan standar panduan penulisan proposal;
2. Ketepatan tata tulis proposal sesuai dengan ejaan bahasa Indonesia yang benar dan sesuai dengan standar APA dalam penyajian tabel, gambar, penulisan rujukan dan penisan sitasi;
3. Konsistensi dalam penggunaan istilah, warna (jika ada) simbul dan lambang;
4. Kerapian sajian buku proposal yang dikumpulkan;
5. Kelengkapan penggunaan fitur-fitur yang ada dalam MS Word dalam penulisan dan sajian proposal penelitian.
6. Proposal ditulis dalam format A4, margin 3-2-2-2, Huruf Cambria, ukuran 12 (teks utama), 11 (keterangan gambar, tabel, grafik, isi tabel).
7. Penyajian warna dalam proposal hanya jika diperlukan saja.

c. Penyusunan *Slide Presentasi (bobot 20%)*

Jelas dan konsisten, Sedehana & inovative, menampilkan gambar & blok sistem,tulisan menggunakan font yang mudah dibaca, jika diperlukan didukung dengan gambar dan vedio clip yang relevant.

d. Presentasi (bobot 30%)

Bahasa komunikatif, penguasaan materi, penguasaan audiensi, pengendalian waktu (10 menit presentasi + 5 menit diskusi), kejelasan & ketajaman paparan, penguasaan media presentasi.

e. Bobot penilaian 30% dari keseluruhan penilaian mata kuliah ini.

JADWAL PELAKSANAAN

Penetapan Judul dan Kerangka Penelitian	1 Mei 2020
Meringkas Journal	25 April - 1 Mei 2020
Menyusun proposal & Asistensi	25 April – 9 Mei 2020
Presentasi proposal	17-21 Mei 2020
Pengumpulan Luaran Tugas	17 Mei 2020

LAIN-LAIN

Bobot penilaian tugas ini adalah 30% dari dari 100% penilaian mata kuliah ini;
Tugas dikerjakan dan dipresentasikan secara mandiri;

DAFTAR RUJUKAN

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, Y. (2006). *Fundamental of Research Methodology and Statistics*. New York: New Age International.

Tuckman, B. W., & Harper, B. E. (February 9, 2012). *Conducting Educational Research* (6 ed.). Maryland, USA: Rowman & Littlefield Publishers.

(Source: Junaidi et al. (2020))

j. **Determine assessment strategies, forms and instruments**. The selection of assessment strategies, forms and instruments is guided by the behavior stated in the indicator formulation. The formulation of the verb with its measuring assessment must be adequate. The word adequacy contains the meaning of a high level of accuracy. Just to illustrate: to measure the mass of a ring, you must use a (appropriate) scale. If a rice scale is used, of course this is not (careful)---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 Assessment

Indicator	Assessment Strategy	Form of Assessment	Instrument Items
Explain sense of style	Oralor written	Description	Explain meaning style
Mention example draftstyle	Oral	Answer short	Give an example style concept
Skilled at swimming with breaststroke	Performance	Sheet observation	swimming tasks, observation sheet, and assessment rubric
Determine characteristics primes	Paperand Pencil Test	Multiple choice	The following is characteristic primes, namely having A. two factors B. three factors C. four factors
Skilled compile practical report	Product Report	Sheet product assessment	The assessment sheet products and assessment rubrics
Capable cooperate	Observation	Sheet Attitude observation	Observation sheet attitude and rubric evaluation

k. Determine the time allocation to achieve final capabilities. Determining the time allocation to reach each train (Sub-CPMK) is done by first determining the average time allocation by dividing the CPMK time allocation by the number of trains. Next, analyze the complexity and level of difficulty of achieving each train based on experience. Trains that are less complex can have their time allocated reduced 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 may be that a KA can only be achieved after 2 or 3 weeks (meeting), while another KA may only need one week (meeting).

5. RPS format

RPS format used at UNESA, the RPS components described above can be compiled automatically through the SINDIG application that has been developed by UNESA. This application can be accessed via a linkhttps://sindig.unesa.ac.id to make it easier for lecturers to prepare RPS in the 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, as well as 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. Apart from that, evaluation is also needed as a form of accountability for various entities such as stakeholders, graduate users, and other parties who support curriculum development.

Evaluation of curriculum implementation must be carried out as a whole, starting from individual lecturers, teams of supporting lecturers, 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. Evaluation in this model is defined as an improvement process by evaluating performance by comparing it with predetermined standards. The results of this comparison then produce discrepancy information (Steinmetz, 2000).

In curriculum development, it is also necessary to prepare an evaluation mechanism to ensure the success of study program graduate learning outcomes (PLO) in meeting existing standards. The UNESA Curilum Guidelines, which are prepared based on the KKNI, SN-Dikti, Higher Education Standards and Graduate Profile Descriptors, are the reference standards in evaluating study program learning outcomes. Figure 5.1 illustrates the PLO evaluation mechanism for study programs based on the discrepancy model.

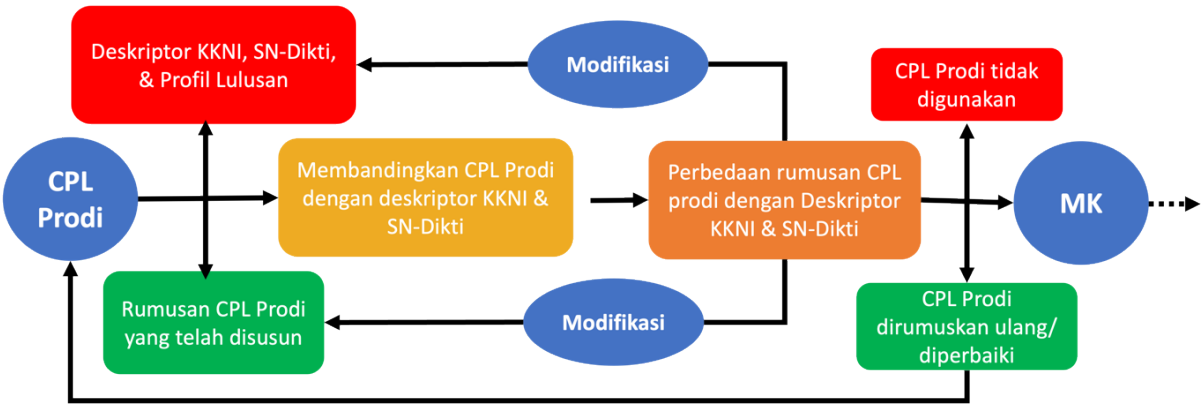


Figure 5.1. Discrepancy Model for Evaluation of Study Program Curriculum

The study program PLO that has been formulated is compared with standards, in this case the UNESA Curriculum Guide, KKNI Descriptors, SN-Dikti, and the graduate profile that has been determined. This comparison produces information on whether the study program's PLO formulation is in accordance with standards both in the specific knowledge and skills aspects (KKNI Descriptors) and general attitudes and skills aspects (SN-Dikti).

If there are differences or inconsistencies with the standards, then the study program's PLO formulation needs to be modified, or if it does not match at all then the study program's PLO is not used. This evaluation is carried out for each study program PLO item. After the revision is carried out, the study program PLO is determined and becomes a reference in the next evaluation process, for example the evaluation of the course structure (MK). In detail, the PLO evaluation is described in the Guidelines for Assessment of Learning Achievement in the Study Program Curriculum.

C. Types of Curriculum Evaluation

Curriculum evaluation is categorized into partial curriculum evaluation (formative evaluation) and comprehensive curriculum evaluation (summative evaluation). Partial curriculum evaluation aims to make improvements to curriculum implementation, while summative evaluation aims to decide the results of curriculum implementation.

1. Partial Curriculum Evaluation (Formative Evaluation)

Formative evaluation is carried out throughout the curriculum, either every semester or annually. Formative evaluation can be referred to as short/medium term evaluation. During the learning process, the course teaching team (DPMK) is required to evaluate the CPMK. Lecturers can evaluate one or a group of materials using statistics on achievement of assignment scores, tests, and atmosphere

class is a consideration. Then, the lecturer team periodically coordinateswith lecturers in areas of expertise by accommodating evaluations from each DPMK. In this process, the achievement of the PLO Study Program which is charged to the Constitutional Court is also recapitulated

and adjusted to the research output and community service needs of the lecturers. The results of this evaluation are used as input for improving learning methods and tools (RPS, teaching materials, etc.).

2. Comprehensive Curriculum Evaluation (Summative Evaluation)

Meanwhile, the summative evaluation is comprehensive in order to review and improve the entire curriculum content according to the validity period. This evaluation can be prepared in stages starting in the third year of curriculum implementation until in the fourth or fifth year it can produce a revised curriculum formulation. 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 graduate search results (tracer study),
4. graduate user needs analysis,
5. SWOT analysis of study program capabilities,
6. analysis of science and technology developments, association recommendations, and study program research roadmaps,

The curriculum control process is carried out by the study program and monitored and assisted by the Higher Education quality assurance unit/institution. Curriculum improvements are based on the results of curriculum evaluation, both formative and summative.

CHAPTER VI GOVERNANCE

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

A. Curriculum Implementation

1. Role of Related Parties

a. University

1) The university creates cooperation documents (Memorandum of Understanding/MoU) with partners, both universities, schools, business and industry or others related to the curriculum.
2) Universityratify UNESA curriculum development, implementation and evaluation guidelines.

b. University Academic Senate (SAU)

- SAU gave consideration to the UNESA curriculum development, implementation and evaluation guidelines before it was approved.

c. Academic Directorate

1) The Academic Directorate prepares guidelines governing the development, implementation and evaluation of the UNESA curriculum.
2) The Academic Directorate prepares a list of mandatory/elective courses at University level that students can take.
3) The Academic Directorate accompanies the study program in development, implementation, and evaluation of the curriculum.
4) The Academic Directorate facilitates information systems and management curriculum in an applicable and comprehensive manner.

d. Faculty/SPs

1) Faculties/SPs determine the study program curriculum documents.
2) Faculties/SPs prepare a list of mandatory/elective level courses Faculties/SPs that students can take.
3) Faculties/SPs create cooperation documents (Memorandum of Cooperation/MoA and/or Collaboration Agreement/IA) with partners, whether fellow universities, schools, or the world of business 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) The study program prepares curriculum documents product in accordance with guidelines development, implementation and evaluation of the UNESA curriculum.
3) The study program implements the study program curriculum in accordance with the UNESA curriculum development, implementation and evaluation guidelines.
4) Study Program evaluate program curriculum in accordance with guidelines development, implementation and evaluation of the UNESA curriculum.
5) The study program follows up on the results of the curriculum audit in order curriculum restructuring/revitalization.

f. Quality Assurance Institute (LPM)

1) LPM sets UNESA quality policies and curriculum quality standards.
2) LPM carries out curriculum audits in UNESA environmental study programs based on the Curriculum Audit Guidelines.

g. Student

- Students provide feedback to the study program 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. Partner

1) The partners collaborate in the form of a Memorandum of Understanding/MoU, Memorandum of Cooperation/MoA, and Cooperation Agreement/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 Academic Directorate.

Deputy Dean/Deputy Director for Academic Affairs,Student Affairs, Alumni, Research, and PKM.

3) Implementation of curriculum audits throughout the university under the coordination and

management of LPM.

b. External Level

1) Collaboration on curriculum development, implementation and evaluationat the university level with partners 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 Affairs and Alumni Affairs.

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

3. Enforcement

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

B. Curriculum Audit

1. Principle

a. Curriculum audit is an activity intended to carry outassessment of the overall curriculum in UNESA environmental study programs.

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

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

2. Criteria

a. Curriculum audit criteria refer to the established quality policy, quality standards and/or curriculum quality manual.

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

3. Operationalization

a. Curriculum audits are carried out periodically at least once a year.

b. Curriculum audits are coordinated and managed by LPM.

c. Audit stages consists of: planning, preparation, implementation,processing and presenting audit results.

a. Implementation of curriculum audits is based on the Curriculum Audit Guidelines.

CHAPTER VII CONCLUSION

The curriculum must continue to be updated regularly to be able to provide students with experiences and competencies that are in line with the demands and needs of society. 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, as well as 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 the curriculum. This guideline can also be used by leaders and quality assurance teams in preparing policies or rules related to the curriculum. With these guidelines, it is hoped that curriculum development, implementation and evaluation can be carried out in accordance with applicable regulations.

UNESA Curriculum Development, Implementation and Evaluation Guidelines2023 was completed well thanks to the hard work and smart 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 guideline. For this reason, this guideline is not final, but will undergo revision in accordance with constructive input from the expert team.

BIBLIOGRAPHY

Akinsanya, P. O. (2014). Dewey's Pragmatic Education: An EclecticPhilosophy of Notes. Educational Practice and Innovation, 1(1), 13-16.

Bovee, C. (1997). Business Communication Today. Prentice Hall.

Heleta, S., & Bagus, T. (2021). Sustainable development goals and higher education: leaving many behind. Higher Education, 81(1), 163-177.

Junaidi, A., Wulandari, D., Arifin, S., Soetanto, H., Kusumawardani, SS, Wastutiningsih, SP, . . . Jobih. (2020). Guide to Preparing a Higher Education Curriculum in the Industry 4.0 Era to Support Independent Learning - Independent Campus. Directorate General of Higher Education, Ministry of Education and Culture.

Ministry of National Development Planning. (2020). Technical Guidelines for Preparing Action Plans for Sustainable Development Goals (TPB).*Development Goals (SDGs)*.Ministry of National Development Planning.

Kohlberg, L., & Gilligan, C. (2014). Moral development. Psychology: Revisiting the Classical Studies, 164.

Independent Education Accreditation Institute. (2022). Accreditation of Undergraduate Study Programs: Supplement to the Accreditation Instrument. Independent Education Accreditation Institute.

Miranda, J., Navarrete, C., Noguez, J., Molina-Espinosa, J.-M., Ramírez-Montoya, M.-S., Navarro-Tuch, S.A., . . . Molina, A. (2021). The core componentsof education 4.0 in higher education: Three case studies in engineering education. Computers & Electrical Engineering, 93, 107278.

P21. (2019). Framework for 21st Century Learning.www.P21.org

Slavin, R.E. (2006). Educational*psychology: Theory and practice*(8th ed.). Pearson Education.

Smaldino, S. E., Lowther, D. L., & Russell, J. D. (2014). Instructional technology & media for learning: Learning technology and media for learning. Prenada Media.

Spady, W. G. (1994). Outcome-Based Education: Critical Issues and Answers. ERIC. Steinmetz, A. (2000). The discrepancy evaluation model. In Evaluation models:

Viewpoints on educational and human services evaluation(pp. 127-143).

Springer.