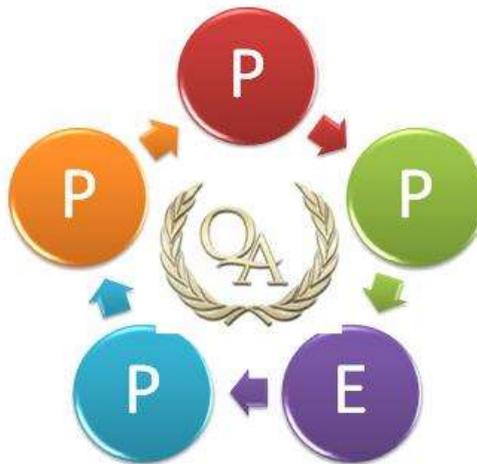




**Standard of Internal Quality Assurance System (SPMI)
Faculty of Mathematics and Natural Sciences
Andalas University**

STANDARD OF LEARNING PROCESS

SM-03-01



Budaya Mutu untuk Daya Saing Regional

**Faculty of Mathematics and Natural Sciences
Andalas University**

2018

Limau Manis Campus, Padang – 25163

PREFACE

We extend praise to almighty God, for His permission Internal Quality Assurance Document of the Faculty of Mathematics and Natural Sciences Andalas University: Standards this Learning Process can be completed and published.

This SPMI standard was made in order to improve the quality of higher education in FMIPA Andalas University in a planned and sustainable manner; guidelines for quality organization in the implementation of SPMI at the faculty and department / study program; and guidelines for faculty and department leaders and staff in the implementation of the specified SPMI standards. Learning Process Standards focuses on discussions that cover the characteristics of the learning process and planning the learning process for each course.

This Learning Process Standard is prepared by the Formulating Team involving members of the Quality Control Cluster (GKM) Department and Agency Study Program FMIPA Unand Internal Quality Assurance and is expected to be used as reference in the preparation of plans, implementation, monitoring and evaluation academic activities for academicians in improving quality on an ongoing basis, especially in the Faculty of Mathematics and Natural Sciences University Andalas.

Padang, June 20th, 2018

Head of BAPEM



Dr. Harmadi
NIP. 197112221999031001

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STANDARD OF LEARNING PROCESS

1. Definition

- 1) The standard of the learning process is a minimum criterion about implementing learning in the study program for obtaining graduate learning outcomes (CPL).
- 2) Learning is the process of student interaction with lecturers and learning resources in an environmental study.
- 3) The characteristics of the learning process consist of interactive nature, holistic, integrative, scientific, contextual, thematic, active, collaborative, and student-centered.
- 4) Interactive states that CPL is achieved by prioritizing the process of two-way interaction between students and lecturers.
- 5) Integrative states that CPL is achieved through a process integrated learning to meet CPL in a manner overall in a single program through interdisciplinary and multidisciplinary approaches.
- 6) Scientific states that CPL is achieved through a process learning that prioritizes scientific approaches so that an academic environment based on a value system is created, norms, and rules of science and uphold the values of religion and nationality.
- 7) Contextual states that CPL is achieved through a learning process adapted to the demands of the ability to solve problems in the realm of his expertise.
- 8) Thematic states that CPL is achieved through a process learning adapted to scientific characteristics study programs and related to real problems through a transdisciplinary approach.
- 9) Effectively states that CPL is achieved effectively with the importance of internalizing the material correctly and adequately in the optimum timeframe.
- 10) Collaborative states that CPL graduates are achieved through a shared learning process that involves interaction between individual learners to produce capitalization attitude, knowledge, and skills.
- 11) Student-centered states that CPL is achieved through a prioritized learning process development of creativity, capacity, personality, and student needs, and develop independence in searching and finding knowledge.
- 12) The form of learning in the form of research is an activity students under the guidance of the lecturer in order development of attitudes, knowledge, skills, experience authentic, as well as increasing community welfare and power nation's competitiveness.
- 13) Semester is a unit of time for an active learning process for 16 (sixteen) weeks, including the middle exam semester and end of semester exams.
- 14) 1 (one) credits in the learning process in the form of lectures, responses, or tutorial, consisting of 50 (fifty) face-to-face activities minutes per week per semester, assignment activities structured 60 (sixty) minutes per week per semester; and independent activities 60 (sixty) minutes per week per semester.
- 15) 1 (one) credits in the learning process practicum, studio practice, workshop practice, field practice, research, community service, and / or process other learning types, 170 (one hundred seventy) minutes per week per semester.
- 16) 1 (one) credits in the learning process in the form of a seminar or other forms of the same type, consisting of face to face activities 100 (one hundred) minutes per week

per semester and independent activities 70 (seventy) minutes per week per semester.

- 17) Remedial learning (remedial teaching) is a form of learning that healing or repairing given to learners with a direct strategy specified learning outcomes (CPMK).
- 18) Formative assessment is a part of the instructional process by digging up the information needed to improve teaching strategies (teaching) and learning (learning) so that it can help learners not yet effective and optimal in achieving CPMK.
- 19) Summative assessment, namely measuring learner's ability to master the material learning both knowledge and skills periodic stated in the final value form.

2. Rational Learning Process Standards

The direction of developing UNIP FMIPA education is to produce nationally competitive and highly competitive graduates recognition at the ASEAN level. Educational development direction FMIPA was derived from the direction of the development of UNAND education, which is to produce graduates who have global competitiveness, the spirit of entrepreneurship, and the character of Andasionalan. Implementation FMIPA UNAND education must be implemented in accordance with the Regulations Minister of Research, Technology, and Higher Education Number 44 the year 2015 Concerning National Higher Education Standards (SN-Dikti).

In an effort to fulfill SN-Dikti and adopt a framework quality assurance of higher education in ASEAN (framework for quality assurance in higher education within ASEAN), then FMIPA UNAND has a standard learning process. Learning process is a crucial process component that determines the component results and achievements of an education program. Process learning that meets quality standards will improve the average GPA, shortening the study period, and increasing power graduate competitiveness. Therefore, every lecturer must be able to plan the learning process to fulfill CPL, choose learning methods and strategies that are suitable for the eyes the lecture he was in. Implementation of the learning process both will take place in the form of interaction between lecturers and students, and learning resources in specific learning environments, by choosing one or a combination of several learning methods in active student-centered learning (SCL) approach to fulfill learning outcomes.

3. Statement of Contents of the Learning Process Standard

- 1) Lecturers in the field of expertise compile planning learning process for each course in form semester learning plan (RPS), the contents of which contain: a) CPL charged to the course; b) final ability planned at each learning stage for meet CPL; c) study material related to ability to be achieved; d) learning methods; e) the time is provided to achieve the ability at each stage learning; f) a student's learning experience manifested in the description of the tasks that must be done by student for one semester; g) criteria, indicators, and assessment weights; and h) list of references used.
- 2) Lecturers in the area of expertise must review the RPS annually according to the development of science and technology and input from graduates.
- 3) The lecturer explains the lecture contract to students at the first lecture, which includes positions and benefits courses, subjects, CPMK, learning methods, assessment system, academic norms, and ethics.
- 4) Lecturers utilize e-learning to provide RPS access and teaching materials for students.

- 5) Lecturers carry out the learning process by choosing one or more learning methods in the student approach, student-centered learning (SCL), for meeting CPMK.
- 6) The lecturer motivates students in the learning process so that it can provide experience for learning throughout life (life long learning).
- 7) Lecturers carry out formative assessments for implementation remedial teaching that can be carried out separately before midterm exams or combined with summative exams.
- 8) Lecturers carry out remedial teaching in the current semester to help students who are not expected to meet CPMK by applying the method cooperative / collaborative learning, giving independent assignments, or carry out tutorials assisted by other students.
- 9) The Chair of the study program guarantees the similarity of material and methods learning for parallel classes.
- 10) The head of the study program sets the learning process for seminars, final assignment research, and final exams in order development of attitudes and values, knowledge, skills precisely, general skills, and soft skills.

4. Strategic Implementation of Learning Process Standards

- 1) BAPEM designs the contents of the standard learning process to be applied to all study programs.
- 2) The contents of the learning process standard are determined by BAPEM after got an agreement by the Dean, Deputy Dean I, Chairperson Department, and Chair of Study Programs.
- 3) BAPEM is accompanied by the Head of the Department and the Head of the Study Program, socializing the contents of the standard learning process to the lecturer.
- 4) The lecturer carries out the contents of the standard learning process.
- 5) BAPEM evaluates the implementation of learning process standards, which is implemented by lecturers through an internal quality audit (AMAI).
- 6) BAPEM controls non-achievement or deviation standard implementation of the learning process through demand corrective action (PTK) to the dean and head of the department.
- 7) BAPEM increases the standard of the learning process after all standard contents are fulfilled in one or several cycles of quality.

5. Indicators of Learning Process Standard Achievement

- 1) Percentage of RPS availability from all subjects at the curriculum of a study program.
- 2) Percentage of RPS that meets the standards of all courses in the curriculum of a study program.
- 3) Percentage of courses that explain RPS at the beginning lecture meeting.
- 4) Percentage of courses that implementation is in accordance with RPS.
- 5) Percentage of courses applying the learning process interactive with methods from the SCL approach.
- 6) Percentage of courses that carry out remedial teaching in the current semester.
- 7) Availability of Guidelines or Final Project Research Guidelines which meet CPT standards.

6. Responsible Parties Achieve the Contents of the Learning Process Standards

The party responsible for achieving process standards Learning, namely:

- 1) Dean;
- 2) Vice Dean I;
- 3) Head of Department;
- 4) Chair of the Study Program; and
- 5) Lecturer.

7. References

- 1) Guide to Compiling Higher Education Curriculum. Ministry Research, Technology, and Higher Education. Directorate of Learning and Student Affairs. Directorate of Learning. Jakarta. 2016
- 2) Guide to AUN-QA Assessment at Program Level. Version 3.0. ASEAN University Network (AUN), Chulalongkorn University, Bangkok, Thailand, 2015.
- 3) Jangit, N. and Inda, U.S. (2016). Effectiveness of remedial teaching on thinking strategies of slow learners. *The International Journal of Indian Psychology*, 4 (1): 98-105. This article is available at <http://www.ijip.in>
- 4) Selvarajan, P. and Vasanthagumar, T. (2012). The impact of remedial teaching on improving the competencies of low achievement. *International Journal of Social Science and Interdisciplinary Research*, 1 (9): 49-58.
- 5) Sugenor, P. (2010). Summative & Formative Assessment. *UCD Teaching and Learning / Resources*. This article is available at: [www.ucd.i / teaching](http://www.ucd.i/teaching)



**KEPUTUSAN DEKAN
FAKULTAS MIPA UNIVERSITAS ANDALAS
Nomor : 162 /XIII/D/FMIPA/2018**

Tentang

**PENUNJUKAN/PENGGANGKATAN PANITIA
DAN TIM PENYUSUN DOKUMEN STANDAR PROSES PEMBELAJARAN
SISTEM PENJAMINAN MUTU INTERNAL (SPMI)
FAKULTAS MIPA UNIVERSITAS ANDALAS TAHUN 2018**

DEKAN FAKULTAS MIPA UNIVERSITAS ANDALAS

- Menimbang :**
- a. Bahwa dalam rangka peningkatan mutu pendidikan tinggi secara berencana dan berkelanjutan di Fakultas MIPA Universitas Andalas, maka perlu dirumuskan dan disusunnya Dokumen Standar Proses Pembelajaran Sistem Penjaminan Mutu Internal (SPMI) Fakultas MIPA Universitas Andalas Tahun 2018;
 - b. Bahwa untuk kelancaran pelaksanaan kegiatan pada butir "a" di atas, dirasa perlu menunjuk dan mengangkat Panitia dan Tim Penyusun Dokumen Standar Proses Pembelajaran Sistem Penjaminan Mutu Internal (SPMI) Fakultas MIPA Universitas Andalas Tahun 2018.
- Mengingat :**
- 1. Undang-Undang Nomor 8 Tahun 1974 dan Nomor 43 Tahun 1999 tentang pokok-pokok Kepegawaian;
 - 2. Undang-undang Nomor 20 tahun 2003 tentang Sistim Pendidikan Nasional;
 - 3. Undang-Undang Nomor 5 Tahun 2015 tentang Aparatur Sipil Negara (ASN);
 - 4. Peraturan Pemerintah RI Nomor 17 tahun 2010 tentang Pengelolaan dan Penyelenggaraan Pendidikan sebagaimana telah diubah dengan PP Nomor 66 Tahun 2010;
 - 5. Keputusan Menteri Pendidikan dan Kebudayaan Nomor 25 Tahun 2012 tentang Organisasi dan Tata Kerja Universitas Andalas;
 - 6. Keputusan Menteri Keuangan Nomor 501/KMK.05/2009 tentang Penetapan Universitas Andalas sebagai instansi pemerintah yang menerapkan Pengelolaan Keuangan Badan Layanan Umum;
 - 7. Keputusan Rektor Universitas Andalas Nomor 809/III/A/Unand-2016 tanggal 9 Agustus 2016 tentang Pengangkatan Dekan Fakultas MIPA Universitas Andalas Periode 2016 – 2020;
 - 8. Pengesahan DIPA Universitas Andalas Tahun 2018 Nomor SP. DIPA-2.01.2.400928/2018 tanggal 5 Desember 2017.

MEMUTUSKAN

- Menetapkan :**
- Pertama :** Menunjuk/mengangkat nama yang tersebut pada lampiran keputusan ini sebagai Panitia dan Tim Penyusun Dokumen Standar Proses Pembelajaran Sistem Penjaminan Mutu Internal (SPMI) Fakultas MIPA Universitas Andalas Tahun 2018.
 - Kedua :** Panitia dan Tim Penyusun Dokumen Standar Proses Pembelajaran Sistem Penjaminan Mutu Internal (SPMI) Fakultas MIPA Universitas Andalas Tahun 2018 dalam menjalankan tugasnya bertanggung jawab kepada Dekan FMIPA Unand.
 - Ketiga :** Segala biaya yang timbul akibat diterbitkannya keputusan ini dibebankan kepada anggaran DIPA Universitas Andalas Tahun 2018.
 - Keempat :** Keputusan ini berlaku sejak tanggal ditetapkan, dengan ketentuan apabila dikemudian hari terdapat kekeliruan dalam penetapan ini akan diadakan perbaikan sebagaimana mestinya.

Ditetapkan di : Padang
Pada Tanggal : 27 Februari 2018

Dekan,



MANSYURDIN
NIP. 196002131987031005

Tembusan :
1. Yang bersangkutan
2. Arsip

Lampiran II : Keputusan Dekan Fakultas MIPA Universitas Andalas

Nomor : ~~162~~ /XIII/D/FMIPA/2018

Tanggal : 27 Februari 2018

Tentang : Panitia Penyusun Dokumen Standar Proses Pembelajaran Sistem Penjaminan Mutu Internal (SPMI) Fakultas MIPA Universitas Andalas Tahun 2018

NO	NAMA	JABATAN
1.	Prof. Dr. Mansyurdin, M.S.	Penanggung Jawab
2.	Prof. Dr. Safni, M.Eng.	Ketua Panitia
3.	Prof. Dr. Adlis Santoni, M.S.	Wakil Ketua
4.	Dr. Tesri Maideliza	Sekretaris
5.	Joni Herman, S.E.	Anggota
6.	Dra. Zufahmi	Anggota
7.	Sosmiadi, M.Kom.	Anggota
8.	Siti Oktovani, S.IP.	Anggota
9.	Amelisa, S.E.	Anggota

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Nomor : ~~102~~ /XIII/D/FMIPA/2018
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Tentang : Tim Penyusun Dokumen Standar Proses Pembelajaran Sistem Penjaminan Mutu Internal (SPMI) Fakultas MIPA Universitas Andalas Tahun 2018

NO	NAMA	JABATAN
1.	Prof. Dr. Mansyurdin, M.S.	Penanggung Jawab
2.	Dr. Harmadi	Ketua Tim Penyusun
3.	Nova Noliza Bakar, M.Si.	Tim Penyusun
4.	Dr. Suryati	Tim Penyusun
5.	Dr. Dewi Imelda Roesma	Tim Penyusun
6.	Izzati Rahmi HG, M.Si.	Tim Penyusun
7.	Dr. Yanita	Tim Penyusun
8.	Dr. Dahyunir Dahlan	Tim Penyusun
9.	Dr. Refilda	Tim Penyusun
10.	Dr. Matlal Fajri Alif	Tim Penyusun
11.	Dr. Deswati	Tim Penyusun
12.	Dr. Zozy Aneloi Noli	Tim Penyusun
13.	Dr. Chairul	Tim Penyusun

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