ACADEMIC HANDBOOK
UNIVERSITAS NEGERI PADANG
2020/2021

FACULTY OF ENGINEERING

LEADERSHIP TEAM

FACULTY OF ENGINEERING

Dr. Fahmi Rizal, M. Pd., M.T.
D E AN

Dr. Waskito, M.T.
VICE DEAN OF ACADEMIC AFFAIRS

Dr. Muhammad Anwar, M.T.
VICE DEAN OF FINANCE AND

Dr. Mukhlidi Muskhir, M.Kom.
VICE DEAN OF STUDENT AFFAIRS

DEVELOPMENT

POSTGRADUATE LEADERSHIP TEAM
FACULTY OF ENGINEERING

Prof. Dr. Nizwardi Jalinus, M.Ed.
Coordinator of Faculty of Engineering
Postgraduate Program

Prof. Dr. Kasman Rukun, M.Pd.
Secretary of Faculty of Engineering
Postgraduate Program

Oktaviani, S.T., M.T.

Chairman of the Quality Assurance
Faculty of Engineering

Ali Basrah Pulungan, S.T., M.T.
Coordinator of Industrial Relations
Faculty of Engineering

PIMPINAN JURUSAN
DEPARTMENT LEADERS

FACULTY OF ENGINEERING

Drs. Purwantono, M.Pd.
Head of Mechanical Engineering Department

Faisal Ashar, M.T., Ph.D.
Head of Civil Engineering Department

Prof. Dr. Wakhinuddin, M.Pd.
Head of Automotive Engineering Department

Thamrin, M.T.
Head of Electronic Engineering Department

Risfendra, M.T., Ph.D.
Head of Electrical Engineering Department

Dr. Fadhilah, M.Si.
Head of Electrical Mining Department

CHAPTER 1

FACULTY OF ENGINEERING

A. Vision, Mission, and Objectives

The Faculty of Engineering, Universitas Negeri Padang (UNP) provides educational services in the form of study programs: (1) technical education (Bachelor Degree/S1, Master Degree/S2, and Doctoral Degree/S3), (2) non-technical education (Bachelor Degree/S1), and (3) vocational education (Diploma D3 and D4) . In order to perform educational service activities, the Faculty of Engineering UNP has set visions, missions and objectives as follows.

1. Vissions

The Faculty of Engineering, UNP has a vision "Becoming an excellent faculty in the fields of Technical and Vocational Education and Training with national and global perspective in Asian region".

In order to have the same understanding, it is necessary to explain the terms contained in the vision.

a. Excellent means the best among similar study programs.

b. Having a national perspective means having a view imbued with a sense of nationality in working for the advancement of the Indonesian nation.

c. Having a global perspective means having broad thinking in terms of technology and vocational fields, and being able to adapt to advances in science and technology and world developments, especially in Asia.

2. Mission

a. Organizing education in the fields of Technical and Vocational Education and Training based on the pillars of education.

b. Performing research and studies in the context of developing science and technology.

c. Carrying out community service activities through the application of science and technology in the Technical and Vocational Education and Training that are relevant to the needs of the community.

d. Take an active role as a center for renewal and information in the fields of the Technical and Vocational Education and Training.

e. Develop partnerships with other institutions both in Indonesia and abroad in the fields of the Technical and Vocational Education and Training.

3. Objectives

a. To generate prospective teachers and experts in the fields of Technical and Vocational Education and Training.

b. To produce research findings in the form of development concepts in the fields of Technical and Vocational Education and Training.

c. To implement knowledge in the field of in the fields of Technical and Vocational Education and Training through community service in order to improve community welfare.

d. Designating Faculty of Engineering, UNP as the center for renewal and information in the fields of Technical and Vocational Education and Training .

B. Faculty Academic Information

1. Department, Study Program, and Expertise

The Faculty of Engineering, UNP has 6 departments and 16 study programs with various fields of expertise. The information related to them are available in Table 1 below.

Table 1. Department, Study Program, Expertise and Number of Credits

No	**Department**	**Study Program**	**Expertise**	**Credit**
1	Civil Engineering Department	Building Engineering Education (S1)	Building Engineering	148
		Civil Engineering (S1)	Civil Engineering	146
		Civil Engineering (D3)	Civil Engineering	120
2	Mechanical Engineering Department	Mechanical Engineering Education (S1)	1. Construction Machinery 2. Production Machinery 3. Fabrication	147
		Mechanical (S1)	Mechanical	148
		Mechanical (D3	1. Construction Machinery 2. Production Machinery 3. Fabrication	115
3	Electrical Engineering Department	Electrical Engineering Education (S1)	Electrical Engineering	146
		Industrial Electrical Engineering (D4)	Industrial Electrical Engineering	146
		Electrical Engineering (D3)	Electrical Installation and Energy Conversion	112

No	Department	Study Program	Expertise	Credit
4	Electronic Engineering Department	Electronic Engineering Education (S1)	1. Audio Video Electronics 2. Industrial Electronics and Controls 3. Telecommunication Electronics 4. Mechatronics	147
		Informatics Engineering Education (S1)	1. Computer and Network Engineering 2. Software engineering 3. Multimedia 4. Information and Learning Technology	149
		Electronic Engineering (D3)	1. Computer Systems Technology 2. Control and Instrument 3. Computer and Network Engineering	119
5	Automotive Engineering Department	Automotive Engineering Education (S1)	1. Production System 2. Heavy Equipment 3. Vehicle Maintenance	147
		Automotive Engineering (D3)	1. Production System 2. Heavy Equipment 3. Vehicle Maintenance	118
6	Mining Engineering Department	Mining Engineering (S1)	General Mine	145
		Mining Engineering (D3)	General Mine	115

C. Academic System

1. New Student Admission

New student admission in Faculty of Engineering UNP is carried out through four entrance examinations, namely : 1. SNMPTN, (2) SBMPTN, (3) Bidik Misi, and (4) Mandiri dan Prestasi. All the processes are held in odd semesters or in the July - December period. nts is held in odd semesters or in the July - December period. Especially for the D3 study program, The process is through the Independent and Achievement paths.

2. Lecture System

Lectures are held in the form of semester. An academic year consists of two semesters, odd semester and even semester. Odd semester is held in the July - December period and even semester is held in the January - June period. Lectures are also held in the intermediate semester, namely in the July-August period. Lectures consist of teaching and learning activities, tutorials, seminars, practicum, studio practice, workshop practice, field practice, and final project.

Teaching and learning activities are theoretical learning activities carried out in class intended as a theoretical transfer of knowledge. Its implementation is held both online and offline.

Tutorial activities are theoretical learning activities that provide independence, discipline, and initiative from students.

Seminar activities are learning activities that focus on a specific topic where the participants who attend can play an active role.

Practicum activities are learning activities carried out in the laboratory to gain real experience in order to increase understanding of theory.

Studio practical learning activities are learning activities carried out in the studio to gain real experience in order to increase understanding of certain theories and skills.

Workshop practical learning activities are learning activities carried out in workshops to gain real experience in order to increase understanding of certain theories and skills.

Field practical learning activities are learning activities carried out outside the campus such as in companies or schools to gain real experience in order to increase understanding of certain theories and skills.

Final project learning activities are learning activities carried out at the end of the study completion in the form of a Final Project, Thesis, or Dissertation. Learning activities are not scheduled but there is more interaction between students and lecturers in order to optimize their final assignments. The output of this final project is a scientific work that must be published.

Faculty of Engineering, UNP also establish 2 types of practical field courses, namely (1) Industrial Field Practice (PLI), and (2) Introduction to School Fields (PLP). Non-educational and vocational students are required to take PLI courses, while educational students are required to take both PLI and PLP courses. PLI is carried out in companies that are relevant to the expertise of the study program, while PLP courses are held in schools that have been appointed as partners.The criteria for students who are allowed to take PLI and PLP are regulated separately in a special guidebook of PLI and PLP activities.

Teaching and learning activities are carried out based on the credit's system in accordance with Permenristekdikti Number 44 of 2015 concerning National Higher Education Standards of the Republic of Indonesia. To assist students in taking courses, a list of courses is compiled by study program in semester groups.

The definition of 1 credit is explained in clause 17 and verse 1 to 4 that:

1) 1 (one) credit in the learning process in the form of lectures, and tutorials, consisting of:
   a. Face-to-face activities of 50 minutes per week per semester;
   b. Structured assignment activities for 60 minutes per week per semester;
   c. Independent activities for 60 minutes per week per semester;
2) 1 (one) credit in the learning process in the form of seminars or other similar forms, consisting of:
   a. Face-to-face activities of 100 minutes per week per semester;
   b. Independent activities for 70 minutes per week per semester;
3) The calculation of the working load for teaching and learning activities in the block, module, or other form system is determined according to the needs of learning outcomes.
4) 1 (one) credit for the learning process in the form of practicum, studio practice, workshop practice, field practice, research, community service, and / or other similar learning processes is held in duration of 170 minutes per week per semester.

Clause 18 explains that the courses that must be taken by students in semester 1 and 2 are determined by the study program. In the following semester, students who acquired a GPA above 3.50 can take a maximum credit load of 24 credits.

3. Exam System

Examination is one of the means and / or formal processes of evaluating student academic completion. In Faculty of Engineering, UNP, exam is performed in several forms, namely: (1) Block Examination (Block Test), (2) Mid-Semester Examination (UTS), (3) Final-Semester Examination (UAS), and (4) Final Project Examination.

Block exams (block tests), are carried out based on blocks or certain topics from the lecture material or the object of research / work in laboratory or workshop activities.

Mid-Semester Examination is organized in middle of semester. This kind of examination usually only applies to theoretical courses. It is carried out by lecturers who teach courses on the day according to the class schedule and can be implemented either offline or online.

Final Semester Examination (UAS) is organized at the end of the semester which includes all the material given for one semester. It is carried out by lecturers who teach courses on the day according to the class schedule and can be implemented either offline or online.

Final Project Examination is organized at the final stage of student study completion with the following requirements:

1) Students have passed all required courses regulated in the study program curriculum according to minimum GPA with 3.0 for Master and Doctoral Degree and 2.0 for D3, D4, and S1 Degree, except for final assignments (Final Project, Thesis or a Dissertation).
2) Students have completed writing the final report approved by the supervisor and the Head of Study Program.
3) The draft of the final report has passed the plagiarism test.
4) Student have passed the TOEFL test with minimum score for each degree is determined as follow 450 for Doctoral Degree, 425 for Master Degree, and 400 for D3, D4, and S1 study programs.

5) Student from S1/D4 program must publish a paper in a national journal with ISSN.

6) Student from Master Degree Program must publish one scientific article in a accredited national journal or international journal, or it is at least accepted in proceedings indexed by Scopus / Web of Science.

7) For doctoral study program, at least 1 paper resulted from a dissertation research report has been published in a reputable international accredited journal.

4. Scoring System

Assessment of student learning achievement is performed in various forms, as follow: (1) Mid-Semester Examination (UTS), (2) Final Semester Examination (UAS), (3) Assignment, and (4) etc. UTS is held in the middle of the semester or the 8th week. While UAS is held at the end of the semester or the 16th week. Task assessment is an assessment carried out by a lecturer who teaches a subject related to student's academic achievements toward this subject. Meanwhile, the activity assessment is carried out to evaluate the other aspects of student learning activities such as discipline,diligence, and seriousness. Each assessment has a weight, the weight setting among the four elements of the assessment is determined by the lecturer who teaches the course.

The assessment must consider and refer to the examination implementation system as mentioned above. The scores are given in the form of letters with the following number conversions as follow,

Nilai Angka*	**Nilai Mutu**	**Angka Mutu**
85 s.d. 100	A	4
75 s.d. 84	A-	3,7
70 s.d. 74	B+	3,4

65 s.d. 69	B	3,1
60 s.d. 64	B-	2,8
55 s.d. 59	C+	2,5
50 s.d. 54	C	2,2
45 s.d. 49	C-	1,9
41 s.d. 44	D	1,6
0 s.d. 40	E	0

Student's achievement index in each semester I formulated as follow,

$$IP = \frac{\sum Ni \text{ x } Ki}{\sum Ki}$$

Ni = the final grade of the course, for one semester

Ki = credit load for courses, for one semester

The cumulative grade point average (GPA) is determined by the formula:

$$IPK = \frac{\sum Nk \text{ x } Kk}{\sum Kk}$$

Nk = final grade of the course, in all courses

Kk = credit load for courses

5. Evaluation

Evaluation of student learning outcomes for each course is carried out at the end of the semester. Students who achieve semester GPA <2.00 will receive written warnings two times from the Head of the Department before being declared out of the program.

Student will be drop out from the study program if,

1) Their GPA less than 1.75 in two consecutive semester
2) Their GPA less than 1.75 in four semester.
3) Students are not ale to complete their study during semesters permitted by law.

6. Academic Guidance

Academic guidance mainly aims to help students to achieve optimal learning outcomes. This kind of assistance is provided to students through consulting activities with Academic Advisors in terms of learning strategies, solving academic problems including solving student personal problems which will have an impact on academic achievements. Moreover, Academic Advisor is also expected to be able to instill a sense of responsibility and a spirit of leadership in the students. Academic advisor (PA) is a lecturer who is assigned by the Head of the Department to provide academic guidance to the student as part of the academic activities.

ACADEMIC INFORMATION OF DEPARTMENTS IN FACULTY OF ENGINEERING

DEPARTMENT OF MECHANICAL ENGINEERING

Brief Description of the Department of Mechanical Engineering

Currently the Department of Mechanical Engineering has 3 study programs, namely (1) Mechanical Engineering Education Study Program, (2) Mechanical Engineering Study Program (S1), and (3) Mechanical Engineering Study Program (D3).

The Mechanical Engineering Education Study Program is a development of the Department of Mechanical Teaching and Engineering Faculty (FKT) IKIP Padang, established based on the PTIP Ministerial Decree No.351 / 65, August 7, 1965. The Mechanical Engineering Study Program (S1) was officially established on November 9, 2017 through the Decree of the Director General of Higher Education Number 624 / KPT / I / 2017 on 09-11-2017. The Mechanical Engineering Study Program (D3) was established on August 5, 1997 based on the Letter of the Director General of Higher Education No. 239 / DIKTI / Kep / 1997, dated 15 August 1999.

The Mechanical Engineering Education Study Program (S1) is accredited A, the Mechanical Engineering Study Program is accredited B, and the Mechanical Engineering Study Program already has an operational permit to organize academic activities.

MECHANICAL ENGINEERING EDUCATION STUDY PROGRAM (S1) / PSPTM

Vision, Mission, and Objectives

Vision**:** To become a leading study program in Asia in producing graduates in the field of engineering engineering

education by 2024 who have competitiveness, competence and noble character.

Mission

1. Organizing the S1 Mechanical Engineering Education education program through a higher education system that is planned and integrated in a dynamic curriculum, complete supporting facilities and teaching staff who are competent in their fields.
2. Carrying out research and development of appropriate technology for the community so that it can contribute to support the development and application in the field of engineering vocational education.
3. Organizing community service related to the field of Mechanical Vocational Education.
4. Collaborating and networking with government organizations, industrial sectors educational institutions to increase the competitiveness of students or alumnae.

Objectives

1. To produce graduates of mechanical engineering education who have high scientific competence and character based on faith and piety, a national perspective and a global perspective.
2. To produce innovative and quality scientific works and publications in scientific and technological development in the field of vocational machinery.
3. To produce scientific work in the field of mechanical engineering education that can be applied to society to support the acceleration of national development.
5. To establish work collaboration and networking with government organizations, industrial sectors educational institutions to increase the competitiveness of students or alumnae.

Graduate Profile of Mechanical Engineering Education Study Program (S1)/ PSPTM

Based on the objectives of the mechanical engineering education program, graduates can acquire several job opportunities as follows:

a) Prospective professional teachers. PSPTM graduates can become professional teacher candidates in the field of mechanical engineering. Pedagogical education and educational field practice or teaching practice that has been equipped for graduates to become professional teacher candidates according to their fields.

b) Experts in the industrial sectors, PSPTM graduates can work in various fields such as in the automotive industry, electronics industry, infrastructure development, banking, and others. Additional competencies that graduates must possess are mastery of specific skills that are more in-depth according to the type of industry in which the graduates work. This competency can be obtained through various training / workshops held by PSPTM and other institutions.

c) Functional staff at Government Institutions and State-Owned Enterprises such as the civil servant, BUMN, industrial sector, Public Works Service, etc. Apart from the three specified competencies, to be able to work in this sector graduates must be equipped with sufficient knowledge in the management of state institutions.

d) Academics and researchers engaged in teaching and research. Examples of graduate professions are lecturers, research staff at research institutions, instructors in education and training bodies, etc. To be able to work in this field, additional competencies are needed, including pedagogical competence, public speaking research methodology and writing scientific journals etc.

e) Entrepreneurs/technopreneurs, entrepreneurial opportunities that are wide open must be maximized by graduates. Several sectors that can be cultivated land, such as the sectors of education, transportation, trade and small and medium industry and heavy industry. To achieve entrepreneurial success, graduates must have additional competencies in the form of entrepreneurship, technical economic analysis etc.

f) Several other fields can be a place to work for graduates such as becoming politicians, public officials, etc.

To be able to compete in the global market, graduates of the PSPTM study program must have high competence in the field of knowledge they are engaged in and have a strong character as an educator. The following items are the basic competencies that every PSPTM graduate must have.

a) Have adequate knowledge and understanding, which can be translated into: (1) understanding basic science (mathematics and other natural sciences) related to the mechanical context and vocational pedagogy as a provision in carrying out professional work in their field, (2) being able to update information from multidisciplinary science outised engineering field.

b) Have sharp analytical skills: (1) able to identify, formulate and solve problems in mechanics and applicable vocational pedagogy with appropriate scientific methods, (2) analyze and evaluate a product, process or method in multi disciplines, (2) choose the most appropriate and effective method of work

c) Have the ability in design: able to design machinery and learning processes (technical equipment, program, industrial process) that are reliable and applicable

d) Have the ability to investigate and assess a problem: (1) literature analysis and data utilization, (2) design and carry out experiments and interpret data.

e) Have the ability in implementing engineering practices: (1) able to transfer the results of new discoveries into educational and industrial / commercial purposes, (2) able to plan and control the process for development, (3) be able to combine / assemble all the knowledge gained, (4) understand non-technical effects / risks from the activities carried out.

f) Have social and sharing skills: (1) understand their function as an individual and as a member of a work team, (2) communicate effectively with various methods, (3) Being aware with the environment, health and legal aspects, (d) Aware of the importance of lifelong learning, (e) work and communicate nationally and internationally

Graduate Learning Outcomes

The graduate learning outcomes must consist of four elements as stated in the SN-Dikti, attitude, knowledge, general skills, and special skills.

1. Attitude; constitutes correct and cultured behavior as a result of internalization and actualization of values and norms that are reflected in spiritual and social life through learning, experience, student work, research and / or dedication to society related to learning

2. Knowledge; the mastery of concepts, theories, methods, and / or philosophies in the field of mechanical engineering obtained through learning, student work experience, research and / or community service related to learning.

3. General skills; general work abilities that must be possessed by every graduate in order to ensure

equality of graduate ability according to program level and type of higher education.

4. Special abilities; special work abilities that must be possessed by every S1 graduate of mechanical engineering education.

Table 2: Matrix of learning outcomes for Mechanical Engineering Education Study Program (S1) based on the KKNI and SN-Dikti levels

No	Qualification levels for KKNI and SN-Dikti	Graduate Learning Outcomes
1	Attitude	1. Have integrity and character based on faith and devotion to God Almighty 2. Contribute to the improvement of the quality of life in society, nation, state, and the advancement of civilization based on Pancasila. 3. Respect the diversity of cultures, views, religions and beliefs, as well as the original opinions or findings of others. 4. Have the ability to think critically, communicate effectively, collaborate and be creative and be able to adapt and innovate to developments in science and technology. 5. Having concern for the environment, occupational health and safety
2	Knowledge	1. Able to design, implement and evaluate the learning process in vocational education in the field of mechanical engineering. 2. Mastering the basic concepts of

		vocational education which includes the development of students, learning theories, the nature of science and scientific thinking. 3. Mastering innovative learning strategies oriented personal, social and academic skills (life skills) in Mechanical Engineering learning.
3	General Skills	1. Have the ability for entrepreneurial character. 2. Able to communicate nationally and internationally 3. Able to prepare learning administration in the vocational field of mechanical engineering
4	Special Skills	1. Able to carry out research in the field of mechanical engineering according to scientific methods and attitudes 2. Have knowledge and skills in the field of mechanical engineering in the expertise of: mechanical engineering, fabrication engineering and machine design. 3. Able to do work professionally in the field of Vocational Mechanical Engineering. 4. Able to design and create applied technology machines with proper mechanical and analytical principles intended to facilitate human work

In addition, the learning outcomes of the Mechanical Engineering education undergraduate study program based on graduate profiles is shown in table 3 below :

Table 3.Matrix of Graduates Learning Outcomes Based on Graduate Profiles

No	Graduates Profile	Graduates Learning Outcomes Based on Graduate Profiles
1	Professional Teacher	1. Fulfill the core competencies and expertise as an educator 2. Able to make complete and good learning material/tools. 3. Able to convey learning material in a structured and clear manner. 4. Able to maximize the ability of students in completing lessons.
2	experts in the industrial sector	1. Able to identify and formulate problems related to the mechanical engineering field and present several alternative solutions related to existing problems according to scientific studies. 2. Able to develop and innovate in the area of expertise occupied. 3. Mastering hard skills in basic and advanced / applied mechanical engineering sciences and can play a role as executor to handle field problems related to

		mechanical engineering. 4. Be able to maximize soft skills in terms of communication, teamwork and be able to convey information, ideas, analysis and arguments through various forms of media to the public to develop self-potential
3	Functional staff at Government Institutions and State-Owned Enterprises	1. Mastering hard skills in technical fields (basic and advanced / applied mechanical engineering sciences), legal problems (law) and bureaucratic governance to be able to act as bureaucrats and technical implementers of engineering. 2. Able to provide solutions and make decisions about strategic matters in the field of mechanical engineering based on existing scientific studies. 3. Be able to maximize soft skills in terms of communication, teamwork and be able to convey information, ideas, analysis and arguments through

		various forms of media to the public to develop self-potential
4	Academics and researchers	1. Able to develop hard skills in basic and advanced / applied mechanical engineering sciences in accordance with their respective fields, as well as being able to self-evaluate, manage self-learning to obtain information on current issues and technological developments related to the appropriate field. 2. Able to provide solutions and make decisions related to problems or strategic matters in the field of mechanical engineering based on the scientific studies . 4. Contribute to research road map planning and conduct independent research (designing and carrying out research) based on engineering principles by utilizing modern engineering methods, techniques and instruments (CAD or CAM and other related software) to produce work that is

		tested and recognized nationally or internationally in accredited scientific journals. 5. Be able to maximize soft skills in terms of communication, teamwork and be able to convey information, ideas, analysis and arguments through various forms of media to the public to develop self-potential
5	Entrepreneur/ techno preneur	1. Have the ability to maximize soft skills in terms of resilience as well as see and take opportunities and be able to develop skills as a provision to compete in the world of work. 2. Able to identify and analyze problems in the field of mechanical engineering, as well as to present several alternative solutions related to existing problems according to the scientific study being pursued. 3. Able to design technology related to mechanical engineering in

		accordance with scientific studies by utilizing modern engineering methods, techniques and instruments (CAD, CAM, and various other related software). 4. Able to develop and innovate in machining methods. 5. Mastering hard skills in basic and advanced mechanical engineering sciences and can play a role both as an executor and supervisor to deal with problems in the field and during the process of procuring goods and services. 6. Be able to maximize soft skills in terms of communication, teamwork and be able to convey information, ideas, analysis and arguments through various forms of media to the public to develop self-potential.
6	Other aspect	1. Able to identify and formulate common problems in society

		and present several alternative solutions related to existing problems according to scientific studies. 2. Able to maximize soft skills in terms of communication, teamwork and be able to convey information, ideas, analysis and arguments through various forms of media to the public to develop self-potential.

MECHANICAL ENGINEERING STUDY PROGRAM (D3)

Vision

Become a superior and professional Study Program in producing Associate Experts in the field of Mechanical Engineering, who have broad-minded and noble character.

Mission

1. Organizing vocational education for the Intermediate Expert level in the field of Mechanical Engineering that is relevant, adaptive and innovative to the needs of employment.
2. Carry out research and study activities in the context of developing and applying science in the field of mechanical engineering.
3. Carry out community service activities as the applied implementation of the mechanical engineering field, in the form of appropriate technology, technical

consultation, and design related to machine construction, manufacture and fabrication of mechanical components of machinery, maintenance and repair of other mechanical tools.

4. Gathering resources in the field of fabrication and machining through collaboration with stakeholders.
5. Developing the service quality of the Study Program that prioritizes community satisfaction and accountability.
6. Producing cooperation with the industrial world and the business world.

Objectives

1. Producing intermediate mechanical engineering experts who have professional competence in the field of vocational construction design, machining systems, and fabrication industry sector.
2. Produce applicable technology solutions to problems that exist in society.
3. Producing applicable and innovative works in the field of Mechanical Engineering that can be utilized by the public in the form of appropriate technology.
4. Building a partnership network with community industries as users of graduates and other stakeholders.
5. Producing a Mechanical Engineering Study Program D3 in the field of vocational with good governance (Good Department of Governance).
6. Producing sustainable cooperation with the government, education institution, business and industry sectors.

Profile of Graduates of the Mechanical Engineering Study Program D3

A. (Attitude) - Affective

a. Being devoted to God Almighty and able to show a religious attitude;
b. Upholding human values in carrying out duties based on religion, morals and ethics;
c. Contributing to improving the quality of life in society, nation, state, and the advancement of civilization based on Pancasila;
d. Being good citizens who are proud and love the country who have nationalism and a sense of responsibility to the state and nation;
e. Respect the diversity of cultures, views, religions and beliefs, as well as the original opinions or findings of others;
f. Cooperate and have social sensitivity and concern for the community and the environment;
g. Being a law-abiding society and discipline in public and state life;
h. Internalizing the spirit of independence, struggle and entrepreneurship
i. Demonstrate an attitude of responsibility for work in their field of expertise independently
j. Internalizing values, norms, and academic ethics;

B. KNOWLEDGE

a. Mastering the principles and procedures for workshops/studios and laboratory activities, as well as the implementation of occupational safety and health
b. Mastering the concept of identification and solving engineering problems in the field of production and maintenance, which are clearly defined using data analysis based on relevant standards, as well as selecting methods by taking into account economic, health, safety and environmental factors
c. Mastering theoretical concepts of mathematics and

natural sciences in general in solving engineering problems, resources, and modern technology.

d. Mastering theoretical concepts in general ways of measurement and testing
e. Mastering knowledge about codes and standards that apply to solving problems Production, maintenance and repair
f. Mastering the current principles and issues in general economic, social, ecological issues
g. Mastering knowledge about the latest and latest technological developments in the applied science of mechanical engineering
h. Mastering smart concepts in effective, straightforward and clear communication

C. GENERAL SKILLS

a. Able to understand and apply entrepreneurship theory, management and entrepreneurial experience as well as the growth of entrepreneurial motivation so that you have the same enthusiasm as entrepreneurship and have a critical, confident, conscientious character, able to communicate and think scientifically in acting as an entrepreneur.
b. Able to solve work problems with the nature and context in accordance with the field of applied expertise based on logical thinking, innovative, and responsible for the results independently
c. Able to complete broad-scope work by analyzing data and methods that are appropriate and selected from a variety of standardized and non-standard methods and by analyzing data
d. Able to compile reports on results and work processes accurately and validly and communicate them effectively to other parties in need
e. Able to show quality and measurable performance to cooperate, communicate, and be innovative in their work
f. Able to carry out the self-evaluation process and be responsible for the achievement of group work results

	and conduct supervision, manage the development of work competencies independently and evaluate the completion of work under their responsibility in their field of expertise independently
g.	Able to apply the scientific context according to the field of mechanical engineering as the implementation of scientific work by ensuring validity and preventing plagiarism

D. SPECIAL SKILLS

a.	Able to use production and maintenance equipment or machines with the latest technology to carry out work.
b.	Able to apply theoretical concepts in general natural science, engineering principles, engineering science and engineering design required for system analysis and design, product processes with technical procedures and practices
c.	Able to carry out every process of the production flow which consists of identifying problems, formulating problem solutions, making product sketches, analyzing product designs, making work drawings, making production estimates, implementing production, testing products and evaluating production and product work (machining, fabrication, and CNC).
d.	Able to design and realize the manufacture of machine components, and parts of a well defined system design, to meet specific needs by taking into account safety, occupational health and environmental issues
e.	Be able to make the right decisions in every job by considering carefully, knowing the consequences to be faced, and the context of what will be decided
f.	Able to carry out machine or tool maintenance actions with standard operating procedures that are effective in terms of time, cost and labor to achieve work reliability.
g.	Able to apply character values in every work activity and daily life in the general public.

MECHANICAL ENGINEERING STUDY PROGRAM (S1)

Vision: To become a leading study program in Asia in producing graduates in the field of Mechanical Engineering who are competitive, competent and have noble character.

Mission:

1. Organizing quality mechanical engineering education.
2. Developing quality mechanical engineering research.
3. Developing scientific works in the field of mechanical engineering in order to increase the nation's competitiveness and the welfare of the community.
4. Developing cooperation with stakeholders continuously as an effort to develop scientific knowledge and apply the mechanical engineering field.

Objectives

1. To produce Mechanical Engineers with high scientific competence and character based on faith and piety, nationalism and environmental insight.
2. Producing innovative and quality research in scientific and technological development in the field of Mechanical Engineering.
3. Producing scientific works in the field of mechanical engineering that can be applied to the public to support the acceleration of national development.
4. To build a strong cooperation network at the national and international levels in the scientific development of mechanical engineering.

Graduate Profiles

1. Become an expert in the industrial sectors, PSTM graduates can work in various fields such as the

automotive industry, electronics industry, infrastructure development, banking, etc. Additional competencies that graduates must possess are mastery of specific skills that are more in-depth according to the type of industry in which the graduates work. This competency can be obtained through various training/ workshops held by PSTM and various other institutions.

2. Functional staff at Government Institutions and State-Owned Enterprises such as the civil servant, BUMN, industrial sector, Public Works Service, etc. Apart from the three specified competencies, to be able to work in this sector graduates must be equipped with sufficient knowledge in the management of state institutions.

3. Academics and researchers engaged in teaching and research. Examples of graduate professions are lecturers, research staff at research institutions, instructors in education and training bodies, etc. To be able to work in this field, additional competencies are needed, including pedagogical competence, public speaking research methodology and writing scientific journals etc.

4. Entrepreneurs / technopreneurs, entrepreneurial opportunities that are wide open must be maximized by graduates. Several sectors that can be cultivated land, such as the sectors of education, transportation, trade and small and medium industry and heavy industry. To achieve entrepreneurial success, graduates must have additional competencies in the form of entrepreneurship, technical economic analysis etc.

5. Professional engineers, graduates can become consultants in the fields of energy conservation, production and materials, graduates who are interested in becoming a consultant must prepare

themselves for certain expertise in accordance with the field they want to pursue.

6. Other fields can be a place to work for graduates such as becoming politicians, public officials, etc.

Graduate Learning Outcomes

Learning Outcomes are described as referring to KKNI Level 6 Descriptor that to master the theoretical concepts in the field of knowledge and skills in general. Graduate Learning Outcomes (CPL) of PSTM S1 are classified into four main categories:

1. Attitude

- Be devoted to God Almighty and able to show a religious attitude
- Contributing to improving the quality of life in society, nation, state, and advancement of civilization based on Pancasila.
- Make people with Indonesian personalities, have a sense of humanity and love the country
- Respect the diversity of cultures, views, religions and beliefs, as well as the original opinions or findings of others.
- By taking general English courses, students are expected to be able to master basic skills in English
- Cooperative and have social sensitivity and concern for society and the environment
- Faith and devotion to one and only god, honest and responsible, cooperative, independent critical, creative, communicative, effective, alert, aware, responsive wisdom, caring tough and tawakal in dealing with disasters

- Students are able to understand the Minangkabau human identity and be able to find progress values contained in adat that are relevant to 21st century human competence.
- Provide skills to students to carry out development and development programs.
- Fostering students to become innovators, motivators, and problem solvers. Providing experience and skills to students as development cadres
- Understand and have a commitment to ethics & profession and show a responsible attitude to work in their field of expertise independently
- Able to work effectively both individually and in multidisciplinary or multi-cultural teams and have social sensitivity and concern for society and the environment
- Understand and have a commitment to ethics & profession and show a responsible attitude to work in their field of expertise independently,
- Able to work effectively both individually and in multidisciplinary or multi-cultural teams and have social sensitivity and concern for society and the environment

2. Knowledge

- Students are able to apply foreign language skills in an integrated manner according to the situation, including understanding sentence patterns and basic vocabulary that help students understand situations (Cognitive aspects): equip students with hiragana writing skills and communicate in Japanese according to context (aspect: Psychomotor)
- Critical of the prospects and problems of developing multicultural ideology in education in Indonesia, fostering the character of students through education with a multicultural perspective

- Act as citizens who are proud and love the country, have nationalism, and have a sense of responsibility to the state and nation
- Mastering the basic theoretical concepts of mathematical knowledge and basic science as a basis for the development of mechanical engineering and its applications
- Mastering the basic principles of mechanical engineering (mechanical engineering principles), engineering science and mechanical engineering design required for the analysis and development of systems, processes and machinery products
- Mastering knowledge of standardization and applicable technical codes to be applied in the design, production process and technical maintenance in the field of mechanical engineering
- Mastering science and technology from across scientific disciplines that support the development of mechanical engineering.
- Mastering the principles of K3 and sustainable environmental management and their application to the implementation of machining processes and various other activities in the field of mechanical engineering
- Understand contemporary problems, especially in engineering
- Mastering the basics of managerial science and economic analysis and the world of industry and machinery
- Mastering basic scientific concepts and advanced technology development in the field of energy expertise such as energy auditing, optimization, conservation, thermal characteristics, energy storage and new and renewable energy

- Mastering basic scientific concepts and advanced technology development in the fields of design and manufacturing expertise such as production processes, ergonomics, safety, alternative engineering, and other mechanical engineering
- Mastering basic scientific concepts and advanced technology development in the field of engineering materials expertise such as material processing, polymers, composites, corrosion, nano materials, biomaterials and others
- Mastering the basic theoretical concepts of mathematical knowledge and basic science as a basis for the development of mechanical engineering and its applications
- Understand contemporary problems, especially in engineering
- Mastering the basics of managerial science and economic analysis and industry and machinery
- Mastering the basics of managerial science and economic analysis and industry and machinery

3. General skills

- Able to apply the effects and benefits of various movement activities for physical fitness and health through various games, competitions and sports exercises and the ability to analyze the importance of physical activity to maintain and develop physiological functions of the body and health and can be applied throughout life.
- Students are able to understand and apply entrepreneurship theory, management and entrepreneurial experience as well as the growth of entrepreneurial motivation so that they have the same entrepreneurial spirit and have a critical, confident,

conscientious character, are able to communicate and think scientifically in acting as an entrepreneur.

- Apply information and communication technology (ICT) in planning and implementing learning processes and evaluations
- Students are able to understand and apply entrepreneurship theory, management and entrepreneurial experience as well as the growth of entrepreneurial motivation so that they have the same entrepreneurial spirit and have a critical, confident, conscientious character, are able to communicate and think scientifically in acting as an entrepreneur.
- Able to design components, operate, manage, and maintain machines and systems related to machinery
- Able to carry out professional work in the field of Mechanical Engineering, especially in the concentration of: (a) energy sector, (b) design and manufacturing sector, (c) material sector
- Able to design, carry out experiments, analyze and interpret data obtained, especially in the concentration of studies: (a) the energy sector, (b) the design and manufacturing sector, (c) the material sector

4. Special Skills

- Able to become entrepreneurs / technopreneurs in the field of mechanical engineering
- Able to express innovative ideas and produce scientific work in accordance with scientific procedures based on analysis, information and data and able to interpret and communicate accurately and accountably in order to solve problems and phenomena that occur in relation to the profession.
- Able to design, create and develop technology in the field of mechanical engineering and its application in

accordance with the principles of mechanics and proper analysis intended to facilitate human work.

- Able to design, create and develop technology in the field of mechanical engineering and its application in accordance with the principles of mechanics and proper analysis intended to facilitate human work.
- Able to adapt and support the development of industry, science and technology (IPTEK)
- Able to design, create and develop technology in the field of mechanical engineering and its application in accordance with the principles of mechanics and proper analysis intended to facilitate human work.
- Able to express innovative ideas and produce scientific work in accordance with scientific procedures based on analysis, information and data and able to interpret and communicate accurately and accountably in order to solve problems and phenomena that occur in relation to the profession.
- Able to design, create and develop technology in the field of mechanical engineering and its application in accordance with the principles of mechanics and proper analysis intended to facilitate human work.
- Able to become entrepreneurs / technopreneurs in the field of mechanical engineering

Based on the predetermined graduate learning outcomes, graduates of the Mechanical Engineering Study Program have sufficient competence in carrying out professional work, especially in the first five years

The learning outcomes of Mechanical Engineering Study Program are presented in the following table:

Table. 1. Learning Outcomes of Mechanical Engineering Study Program According to the Qualification Level of the KKNI

No	Graduate Profile	Learning Outcomes According to the Qualification Level of the KKNI
1	experts in the industrial sector	1. Able to identify and formulate problems related to the mechanical engineering field and present several alternative solutions related to existing problems according to scientific studies. 2. Able to develop and innovate in the area of expertise occupied. 3. Mastering hard skills in basic and advanced / applied mechanical engineering sciences and can play a role as executor to handle field problems related to mechanical engineering. 4. Be able to maximize soft skills in terms of communication, teamwork and be able to convey information, ideas, analysis and arguments through various forms of media to the public to develop self-potential
2	Functional staff at Government Institutio State-Owned Enterpr	1. Mastering hard skills in technical fields (basic and advanced / applied mechanical engineering sciences), legal problems (law) and bureaucratic governance to be able to act as bureaucrats and technical implementers of engineering. 2. Able to provide solutions and make decisions about strategic matters in the field of mechanical engineering based on existing scientific studies. 3. Be able to maximize soft skills in terms of communication, teamwork and be able to convey information, ideas, analysis and arguments through various forms of media to the public to develop self-potential.

3	Academics and researchers	1. Able to develop hard skills in basic and advanced / applied mechanical engineering sciences in accordance with their respective fields, as well as being able to self-evaluate, manage self-learning to obtain information on current issues and technological developments related to the appropriate field. 2. Able to provide solutions and make decisions related to problems or strategic matters in the world of mechanical engineering based on the scientific studies that are carried out. 3. Contribute to research road map planning and conduct independent research (designing and carrying out research) based on engineering principles by utilizing modern engineering methods, techniques and instruments (CAD or CAM and other related software) to produce work that is tested and recognized nationally or internationally in accredited scientific journals. 4. Able to maximize soft skills in terms of communication, teamwork and be able to convey information, ideas, analysis and arguments through various forms of media to the public to develop self-potential.
4	Wirausaha wan / entrepreneur/ techno preneur	1. Able to maximize soft skills in terms of resilience, the ability to see and take opportunities and be able to develop skills as a provision to compete in the world of work. 2. Able to identify and analyze problems in the field of mechanical engineering, as well as to present several alternative solutions related to existing problems according to the scientific study being pursued. 3. Able to design technology related to mechanical engineering in accordance with scientific studies by utilizing modern engineering methods, techniques and instruments (CAD,

		CAM, and various other related software). 4. Able to develop and innovate in machining methods. 5. Mastering hard skills in basic and advanced mechanical engineering sciences and can play a role both as an executor and supervisor to deal with problems in the field and during the process of procuring goods and services. 6. Able to maximize soft skills in terms of communication, teamwork and be able to convey information, ideas, analysis and arguments through various forms of media to the public to develop self-potential.
5	Engineer profesional	1. Able to identify and formulate problems in the field of mechanical engineering and present several alternative solutions related to existing problems according to scientific studies. 2. Able to identify, design a technology in the field of mechanical engineering in accordance with scientific studies by utilizing modern engineering methods, techniques and instruments (CAD, CAM, and various other related software). 3. Mastering hard skills in basic and advanced / applied mechanical engineering sciences and can act as a consultant in the field of mechanical engineering by considering economic, time and quality aspects. 4. Able to maximize soft skills in terms of communication, teamwork and be able to convey information, ideas, analysis and arguments through various forms of media to the public to develop self-potential.
6	Bidang lain-lain	1. Able to identify and formulate common problems in society and present several alternative solutions related to existing problems according to scientific studies.

		2. Able to maximize soft skills in terms of communication, teamwork and be able to convey information, ideas, analysis and arguments through various forms of media to the public to develop self-potential.

DEPARTMENT OF CIVIL ENGINEERING

Department of Civil Engineering currently has 3 (three) study programs. An undergraduate education study program, a non-educational undergraduate study program, and a diploma program. These three study programs have been certified by BAN-PT with all of their accreditation scores are B. The Civil Engineering Undergraduate Study Program is a new study program established in 2016 and it is currently being a study programs that have a very high level of interest.

Building Engineering Education Study Program (S1)

The Building Engineering Education Study Program is one of the three study programs available in Department of Civil Engineering, Faculty of Engineering, UNP. This program organizes Building Engineering Education with the aim is to produce a Bachelor of Education in the field of Civil Engineering for Prospective Teachers at Vocational High Schools and instructors at Work Training Centers in the industrial / business sector who are superior, professional, skilled, and adaptive to the development of science and technology, environmental conservation and socio-cultural.

The Building Engineering Education Study Program also equipped with entrepreneurship skills as a provision to manage the education sector.

Vision

To become a study program that produces prospective and excellent professional educators who devote to God Almighty in the field of Building Engineering Education.

Mission

1. Organizing education, research and community service in the field of Building Engineering Education.
2. Producing prospective professional educators according to KKKN standard level 6 in the field of Building Engineering Education for educational institutions and training centers.
3. Develop a learning strategy / approach in the field of Building Engineering Education to be applied to educational institutions and training centers.

Purpose

1. Producing educational staff in Vocational High Schools (SMK), Industrial Education and Training Centers, Polytechnics, etc in the field of building engineering expertise.
2. Producing teaching staff in the fields of development techniques in secondary education institutions, both formal and informal.

Graduate Profile

Table 1. Profiles and competencies of graduates of the Building Engineering Education Study program

Profil	Main Competency	Specific Competency
Prospective Technology and Engineering	• Able to design learning material, learning method, assessment	• Able to apply ethical, scientific,

Profil	Main Competency	Specific Competency
Vocational School Teachers in the field of Building Engineering Educationn	method, teaching media, etc. • Able to show the code of ethics of teachers in the school environment and community. • Able to communicate between and intra-personal in learning Building Engineering skills. • Able to know the characteristics of students well. • Be able to develop a building technical education curriculum in accordance with current development • Integrating the application of field building technology into the curriculum and development engineering learning programs • Be able to develop a building engineering learning program that is in accordance with the demands of the curriculum. • Able to apply the	and intelligent character values in the life of the nation and state. • Able to help students to solve their problems. • Able to apply active, creative, innovative learning strategies in accordance with the standards of the learning process • Integrating the values of professional character in the Building Engineering Learning process. • Integrating the implementation of research through the

Profil	Main Competency	Specific Competency
	latest Building Technique learning assessments in accordance with assessment standards • Able to develop creative and innovative learning media to support the learning process of Building Engineering • Able to apply basic skills to teach construction techniques through teaching training activities.	learning process in the classroom.
Instructor at Training Centers	• Able to develop building engineering training programs in accordance with KKNI level 6 standards • Able to apply training methods according to industry work process standards. • Able to train prospective workers individually and in groups. • Implementing measurement and	• Able to plan building design drawings, material and equipment requirements , labor requirements in building engineering work.

Profil	Main Competency	Specific Competency
	assessment methods in building engineering training. • Able to carry out process assessments and results of Building Engineering training in accordance with industry standards.	
Technical Executor in Civil Engineering Works (Supervisor, Implementer, Estimator)		• Able to carry out civil engineering work. • Able to carry out measurement work, earthworks, substructure work, and superstructure work on civil engineering projects. • Able to carry out supervision of measurement work, earthworks,s

Profil	Main Competency	Specific Competency
		ubstructure work, and superstructur e work on civil engineering projects. • Able to calculate the cost of measuring work, earthworks, substructure work, superstructur e work in civil engineering projects.
Researcher in the Field of Education and Technology	• Mastering research methodology in the field of education and technology. • Able to compile research proposals in education and technology. • Able to carry out research in education and technology. • Able to compile research reports in the field of education and technology.	
Entrepreneu		• Able to

Profil	Main Competency	Specific Competency
rship in the Field of Engineering Civil		design business forms in the field of civil engineering. • Able to carry out entrepreneurial feasibility studies. • Able to manage business in the field of civil engineering. • Mastering strategies and techniques for marketing business results in the civil engineering field.

Graduates Learning Outcomes of the Building Engineering Education Study Program.

ATTITUDE

1. Be fearful of God Almighty and able to show a religious attitude, honesty and patience;
2. Uphold human values in carrying out duties based on religion, morals and ethics;

3. Internalizing academic values, norms, and ethics;
4. Being a citizen with full of pride and love to the country, who have nationalism and a sense of responsibility to the state and nation;
5. Respect the diversity of cultures, views, religions and beliefs, as well as the original opinions or findings of others;
6. Contribute to the improvement of the quality of life in society, nation, state, and progress of civilization based on Pancasila;
7. Cooperate and have social sensitivity and concern for the community and the environment;
8. Obey the law and discipline in social and state life;
9. Internalize the spirit of independence, struggle and entrepreneurship; and
10. Show an attitude of responsibility for work in their field of expertise independently.

KNOWLEDGE

1. The concept of a learning system that includes: learning planning that meets pedagogical principles operationally and its implementation within the framework of civil engineering vocational education;
2. Knowledge of the preparation of Scientific works in accordance with scientific procedures based on analysis, information and data as well as being able to interpret and communicate accurately and accountably in order to solve problems and phenomena that occur related to the profession;
3. Knowledge of the principles of Mathematics and Physics in relation to the principles of Civil Engineering;
4. Knowledge of law and basic theory of Civil Engineering Science;
5. Knowledge of design, analysis and application of

measurement systems related to the quantity and quality of buildings;
6. Knowledge of materials related to Civil Engineering Science for development development;
7. Knowledge of selecting and determining materials for design and implementation purposes related to civil engineering science; and
8. Knowledge of safety systems within the scope of Civil Engineering in the framework of securing equipment and safety of mankind

GENERAL SKILLS

1. Apply logical, critical, systematic, and innovative thinking in the context of developing or implementing science and / or technology in accordance with their field of expertise;
2. To examine the implications of developing or implementing science, technology or art in accordance with their expertise based on scientific principles, procedures and ethics to produce solutions, ideas, designs, or art criticism and compile scientific descriptions of the results of their studies in the form of a thesis or final project report;
3. Make decisions appropriately in the context of solving problems in their field of expertise, based on the results of analysis of information and data;
4. Manage learning independently; and evelop and maintain networks with mentors, colleagues, colleagues both inside and outside the institution.

SPECIFIC SKILLS

1. Facilitating, evaluating, implementing learning and learning outcomes in a professional manner, as well as community partnerships within the framework of vocational education and in carrying out the duties / profession of teachers;
2. Succeeds in compiling Scientific Work in accordance

with scientific procedures based on analysis, information and data and is able to interpret and communicate accurately and accountably in order to solve problems and phenomena that occur related to the profession;

3. Regularly analyze and solve technical problems related to Civil engineering by applying the principles of Mathematics, Physics and Chemistry;
4. Identify and solve current and future Civil Engineering problems using the laws and basic theories of Civil Engineering in a broader application framework;
5. Apply new technology to design, analysis and application of measurement systems related to the quantity and quality of Civil Engineering to meet the needs of society in a professional and ethical manner;
6. Analyze the application of materials related to Civil Engineering for their development; and implementing the Civil Engineering safety system in the framework of securing equipment and the safety of mankind.

Building Civil Engineering Study Program (D3)

Vision

To become a leading study program (center of excellence) in producing civil engineering professionals with a global perspective based on the pillars of science, ethics and professionalism.

Mission

1. Organizing the education in the field of civil engineering
2. Carry out research and study activities in the framework of developing and applying civil engineering science

3. Apply the results of research activities and studies in the field of civil engineering through community service activities
4. Develop and disseminate information technology in the field of civil engineering.

Graduate Profiles

Profile	Description of Profile
Quantity Surveyor	1. Able to estimate the cost of construction work. 2. Able to carry out quantity measurement work in the field. 3. Able to hold tenders in a project. 4. Able to prepare bill of quantity.
Quality Control	1. Able to adjust building material specifications with bestek. 2. Able to carry out technical inspections in the field. 3. Able to conduct material and construction testing. 4. Able to monitor and evaluate work.
Drafter	1. Able to design the shop-drawing using software. 2. Able to explain the shop-drawing technical specifications in the field. 3. Able to make as-built drawings using software.
Enterpreneur in the field of Civil Engineering	Able to develop entrepreneurship based in the field of civil engineering independently or in collaboration.

Civil Engineering Study Program (S1)

Description

Civil Engineering Study Program (S1) is one of three study programs available in Department of Civil Engineering, Faculty of Engineering, UNP. This program provides education with the aim of producing a Bachelor of supervisors, entrepreneurs, researchers and academics in the industrial / business world who have excellent, professional, skilled, and adaptive character to the development of science and technology, environmental conservation, and socio-cultural. Graduates of the Civil Engineering Study Program are also equipped with entrepreneurship skills as a provision to manage multi-business fields.

Vision

The vision, mission, and objectives of the Civil Engineering Study Program refers to the vision, mission and objectives of Universitas Negeri Padang, the Faculty of Engineering and the Department of Civil Engineering which is to become a center of excellence in the field of civil engineering, especially in the aspect of maintenance in 2030.

Mission

1. Providing learning facilities and infrastructure that meet the standards of theoretical and practical lectures.
2. Organizing the learning process in producing reliable and responsive civil engineering graduates.
3. Carry out the education, research, and community service in the field of civil engineering.
4. Collaborating with stakeholders in the field of civil engineering.
5. Increase independence in the management of the Study Program regarding Good Governance

Objectives

1. To produce staff in civil engineering who contribute in planning, implementation and maintenance.
2. To produce staff in civil engineering who are able to develop themselves in the field of civil engineering and adapt according to technological developments.
3. To produce staff in the field of civil engineering who are capable of entrepreneurship and disseminate their knowledge in facing the era of globalization
4. To provide a positive impact on other study programs in Department of Civil Engineering , Faculty of Engineering, UNP
5. To produce good governance (Good Governance) in Department of Civil Engineering with a transparent and efficient manner, thereby it can increase the potential of graduates as human resources based on devotion to God Almighty.

Graduate Profiles of Civil Engineering Study

ProgramTable 1. Graduate Profiles of Civil Engineering Study Program

No.	Graduate Profiles	Capaian Pembelajaran
1	Contractor	1. To participate in maintaining the continuity of work professionalism and ethics in the field by prioritizing work safety and security. 2. Able to understand the impact of solving problems in engineering in a global and social context. 3. Able to develop and

No.	Graduate Profiles	Capaian Pembelajaran
		innovate in construction implementation methods. 4. Have competitiveness in the world of work competition both at the national and international levels, understand the core business of civil engineering and have initiative and innovation in work. 5. Have knowledge, the ability to carry out analysis and make decisions related to construction forensics, and be able to apply it as a form of community service.
2	Planning consultant / Supervisor	1. To participate in maintaining the continuity of work professionalism and ethics in the field by prioritizing work safety and security. 2. Able to understand the impact of solving problems in engineering in a global and social context. 3. Able to develop and innovate in planning and supervision of construction implementation. 4. Have competitiveness in the world of work competition both at the national and international levels, understand the core business

No.	Graduate Profiles	Capaian Pembelajaran
		of civil engineering and have initiative and innovation in work. 5. Have knowledge, ability to analyze and make decisions related to construction forensics, and be able to apply it as a form of community service.
3	Entrepreneur (Contractor/ Consultant)	1. To participate in maintaining the continuity of work professionalism and ethics in the field by prioritizing work safety and security. 2. Able to understand the impact of solving problems in engineering in a global and social context. 3. Able to develop and innovate in construction implementation methods, construction planning and supervision. 4. Have competitiveness in the world of work competition both at the national and international levels, understand the core business of civil engineering and have initiative and innovation in work. 5. Have knowledge, ability to analyze and make decisions related to construction

No.	Graduate Profiles	Capaian Pembelajaran
		forensics, and be able to apply it as a form of community service.

Analysis of the Graduate Profiles of the Civil Engineering Study Program

The graduates of Civil Engineering Study Program are expected to have an occupation according to their fields of Civil Engineering or in other professional worlds, such as: contractors, consultant, supervisor, academics, researchers and entrepreneurs in various business fields both in BUMN and private sector. The future alumni will also have sufficient provisions to continue their education to the Masters in Civil Engineering.

Graduates Learning Outcomes of the Civil Engineering Study Program

ATTITUDE

1. Be fearful of God Almighty and able to show a religious attitude, honesty and patience;
2. Uphold human values in carrying out duties based on religion, morals and ethics;
3. Internalizing academic values, norms, and ethics;
4. Being a citizen with full of pride and love to the country, who have nationalism and a sense of responsibility to the state and nation;
5. Respect the diversity of cultures, views, religions and beliefs, as well as the original opinions or findings of others;
6. Contribute to the improvement of the quality of life in society, nation, state, and progress of civilization based on Pancasila;
7. Cooperate and have social sensitivity and concern for the community and the environment;
8. Obey the law and discipline in social and state life;

9. Internalize the spirit of independence, struggle and entrepreneurship; and
10. Show an attitude of responsibility for work in their field of expertise independently.

KNOWLEDGE

1. Mastering theoretical concepts in general natural science, engineering principles, engineering science and engineering design required for the analysis and design of systems, processes, products or components.
2. Mastering theoretical concepts in general ways of testing and measuring.
3. Mastering theoretical concepts in general about engineering problem solving methods, resources, tools, and suitable modern technology to solve engineering problems.Identify and solve current and future Civil Engineering problems using the basic laws and theories of Civil Engineering within a broader application framework;
4. Mastering knowledge of codes and standards that apply to solving engineering problems.
5. Mastering the current principles and issues in general economic, social, ecological issues.
6. Mastering knowledge of communication techniques
7. Mastering knowledge about the latest and latest technological developments
8. Mastering the principles and procedures for workshops / studios and laboratory activities, as well as the implementation of K3 occupational safety and health.

GENERAL SKILLS

1. Apply logical, critical, systematic, and innovative thinking in the context of developing or implementing

science and / or technology in accordance with their field of expertise;
2. Examining the implications of developing or implementing science, technology or art in accordance with their expertise based on scientific principles, procedures and ethics to produce solutions, ideas, designs, or art criticism and compile scientific descriptions of the results of their studies in the form of a thesis or final project report;
3. Make decisions appropriately in the context of solving problems in their field of expertise, based on the results of analysis of information and data;
4. Manage learning independently; and
5. Develop and maintain networks with mentors, colleagues, peers both inside and outside the institution.

SPECIFIC SKILLS

1. Able to apply mathematics, science, and engineering principles to solve complex engineering problems in the field of civil engineering.
2. Able to find the source of problems in the field of civil engineering through a process of investigation, analysis, interpretation of data and information based on engineering principles;
3. Able to conduct research which includes identification, formulation and analysis of civil engineering problems;
4. Able to formulate alternative solutions to solve complex engineering problems in the field of civil engineering by taking into account economic, public health and safety, cultural, social and environmental factors (environmental consideration);
5. Able to design systems, processes and components with an analytical approach and to consider technical standards, performance aspects, reliability, ease of application, sustainability, and to pay attention to

economic, public health and safety, cultural, social and environmental factors;

6. Able to select resources and utilize appropriate engineering design and analysis tools based on information and computing technology to carry out engineering activities
7. Develop and innovate in construction implementation methods.
8. Able to analyze and plan project implementation.
9. Able to plan time and project financing.
10. Able to analyze, plan and apply post-earthquake construction conditions. facilitate, evaluate, implement learning and learning outcomes in a professional manner, as well as community partnerships within the framework of vocational education in carrying out duties as a teaching profession
11. Successfully compiling Scientific Work in accordance with scientific procedures based on analysis, information and data and being able to interpret and communicate accurately and accountably in order to solve problems and phenomena that occur related to the profession.

DEPARTMENT OF AUTOMOTIVE ENGINEERING

Department of Automotive Engineering currently has 2 (two) study programs, Automotive Engineering Education Study Program (S1) with accreditation A and Automotive Engineering Study Program (D3) with accreditation B.

Automotive Engineering Education Study Program (S1)

Vision

To become an excellent study program in the Asian region in producing professional teacher candidates in the field of Automotive engineering who are devoted to God Almighty.

Mission

1. Improve the quality of the learning process in the automotive engineering education study program based on devotion to God Almighty.
2. Improve students' abilities in designing devices and learning evaluation.
3. Increase students' knowledge and skills in the field of automotive engineering expertise.

Objectives

1. To produce superior educators in Vocational High Schools in the field of Automotive Engineering and or instructors at professional industrial skills training centers based on devotion to God Almighty.
2. To produce industrial practitioners who can apply knowledge and skills in the field of automotive engineering expertise based on standard procedures, scientific principles, and value systems that develop in the work environment.
3. To produce individuals who have a lifelong learning attitude, are responsible, and are professional in developing careers both in educational institutions and in the industrial world in the field of automotive engineering.

Graduate Profiles

1. Able to design learning components regarding lesson plans (RPP), teaching materials, media, student worksheets (LKPD) and learning evaluations in vocational high schools or in educational and training institutions or the automotive engineering industry.
2. Able to apply knowledge and skills in the field of automotive engineering through maintenance and repair of combustion motor systems, vehicle bodies, chassis and power transfer, and electricity.

3. Mastering the basics of automotive engineering by developing scientific concepts of vehicle motion mechanics, mechanical elements, physics, chemistry, fluid mechanics, thermodynamics, heat transfer, and engineering materials.
4. Formulate the basics of problem solving in the field of automotive engineering using automotive simulation and computing skills, vehicle testing, vehicle maintenance, and auto-electronic systems.
5. Able to apply educational knowledge by developing the basics of education, educator psychology, education administration and supervision, guidance and counseling, educational media, learning evaluation, and educational field practice.
6. Be able to master science in self-development in the field of education or industry by classifying the concept of technology and vocational education curricula, vocational education, and special teaching methods, career guidance, human resource mana
7. Be able to apply science in the field of industrial engineering by formulating technical economic theory, entrepreneurship, industrial management, industrial psychology, pollution and the environment.
8. Able to make automotive component designs by formulating the concept of engineering drawings, engineering mathematics, simulation and computation.
9. Able to become an entrepreneur by applying ideas and concepts in an effort to develop an entrepreneurial spirit by improving the knowledge of information and communication technology, entrepreneurship, and English.
10. Become a person with noble character by applying religious values, Pancasila, norms and values that develop in the world of education and industry.

Graduate Learning Outcomes

ATTITUDE

1. Be fearful of God Almighty and able to show a religious attitude, honesty and patience;
2. Uphold human values in carrying out duties based on religion, morals and ethics;
3. Internalizing academic values, norms, and ethics;
4. Being a citizen with full of pride and love to the country, who have nationalism and a sense of responsibility to the state and nation;
5. Respect the diversity of cultures, views, religions and beliefs, as well as the original opinions or findings of others;
6. Contribute to the improvement of the quality of life in society, nation, state, and progress of civilization based on Pancasila;
7. Cooperate and have social sensitivity and concern for the community and the environment;
8. Obey the law and discipline in social and state life;
9. Internalize the spirit of independence, struggle and entrepreneurship; and
10. Demonstrate a responsible attitude and independent learning towards works in the field of vocational automotive engineering.

KNOWLEDGE

1. Mastering the basic concepts of education which include the development of students, learning theories, the nature of science and scientific thinking;
2. Mastering innovative learning strategies oriented personal, social and academic skills (life skills) in Automotive Engineering learning
3. Mastering the school automotive engineering curriculum and its implementation in automotive learning to diagnose and help students' learning

difficulties

4. Mastering theoretical concepts in the automotive field in depth, and being able to formulate, develop and organize in solving work problems.Obey the law and discipline in social and state life;
5. Able to make the best decisions based on analysis of information and data and provide guidance in choosing various alternative solutions.
6. Able to adapt to the development of applicable science and technology in order to optimize work completion
7. Develop automation and computing concepts in automotive work

GENERAL SKILLS

1. Applying logical, critical, systematic, and innovative thinking in the context of developing or implementing science and technology that pays attention to and applies humanities values in accordance with the field of automotive engineering education
2. Demonstrate independent performance, self-regulation, quality, and measurability.
3. Assessing the implications of developing or implementing science and technology that takes into account and applies humanities values in accordance with the field of physics education based on scientific principles, procedures and ethics in order to produce solutions, ideas, and designs.
4. Able to adapt in applying and utilizing science, technology, and / or art in the automotive engineering field in solving problems in the business world and industry.
5. Able to be responsible for the achievement of group work and to evaluate the completion of work assigned to workers under their responsibility
6. Able to work together, communicate, and innovate in teams to solve automotive engineering problems.

7. Able to compile reports on results and work processes accurately and validly and to communicate them effectively to other parties in need.
8. Mastering SOP (Standard Operational Procedure): maintenance, vehicle testing, and occupational health safety (K3).
9. Able to adapt in applying and utilizing science, technology, and / or art in the automotive engineering field in solving problems in the business and industrial sectors

SPECIFIC SKILLS

1. Planning, implementing, and evaluating activity-based automotive engineering learning to develop thinking skills and scientific attitudes in curricular, co-curricular and extracurricular learning by utilizing various science-based learning resources, technology and the surrounding environment
2. Assess and implement various tested and innovative learning strategies
3. Able to complete, direct the work team, evaluate work results and follow up work in accordance with the SOP.
4. Able to use, maintain, calibrate and select alternative equipment in the automotive sector to complete work
5. Able to carry out, organize and develop a process of measuring and testing workpieces according to the SOP
6. Able to identify and solve problems in the automotive sector using data analysis based on relevant standards, and determine the appropriate method
7. Able to understand, apply and the basic principles of entrepreneurship at work and take advantage of opportunities in quality development
8. Able to understand, apply and develop management concepts at work

Automotive Engineering Study Program (D3)

This study program was established on March 30, 1999 with the establishment decree No.90 / DIKTI / Kep / 1999 from the Director General of Higher Education.

Vission

Become an excellent study program as a professional workforce producer in the field of automotive technology who has devotion to God Almighty.

Mission

1. Organizing education and learning in the field of automotive engineering that is adaptive and innovative to the needs of employment.
2. Developing research in the field of automotive engineering to improve the quality of human resources.
3. Developing automotive techniques that can be applied to society.
4. Develop networking with players in the automotive industry and business, private / government agencies, and professional organizations.

Objectives

1. To produce intermediate experts in the automotive field who are professional, and adaptive to the development of automotive technology,
2. To produce research and community service activities in the context of the application of science and technology in the field of automotive engineering,
3. To produce customer-based institutional services
4. To produce a network of cooperation (*net working)* with industry stakeholders and the automotive

business, private / government agencies, and professional organizations.

Graduate Profiles

Graduates of the Automotive Engineering Study Program (D3) have the competence to carry out tasks in the following positions: (1) Head of automotive repair and maintenance workshops. (2) Instructors at the Automotive Training Center (3) Supervisors & Assessors for automotive workshops and training centers. (4) Service advisor (SA) for automotive repair and maintenance workshop (5) Frontman for automotive repair and maintenance workshop. And (6) Automotive technicians.

Graduate Learning Outcomes

ATTITUDE

1. Be fearful of God Almighty and able to show a religious attitude, honesty and patience;
2. Uphold human values in carrying out duties based on religion, morals and ethics;
3. Being a citizen with full of pride and love to the country, who have nationalism and a sense of responsibility to the state and nation;
4. Respect the diversity of cultures, views, religions and beliefs, as well as the original opinions or findings of others;
5. Contribute to the improvement of the quality of life in society, nation, state, and progress of civilization based on Pancasila;
6. Cooperate and have social sensitivity and concern for the community and the environment;
7. Obey the law and discipline in social and state life;
8. Internalize the spirit of independence, struggle and entrepreneurship; and
9. Demonstrate a responsible attitude and independent learning towards works in the field of vocational

automotive engineering.

KNOWLEDGE

1. Mastering the theoretical concepts of the automotive field in depth, and being able to formulate solutions to work problems.
2. Able to analyze information and data in choosing alternative work completion
3. Able to adapt to the development of applicable science and technology according to the field of work
4. Understand the concepts of automation and computing in automotive work

GENERAL SKILLS

1. Able to adapt in applying and utilizing science, technology, and / or art in the automotive engineering field in solving problems in the business world and industry.
2. Able to be responsible for the achievement of group work results and to evaluate the completion of work assigned to workers.
3. Able to work together, communicate, and innovate in teams to solve automotive engineering problems.
4. Able to compile reports on results and work processes accurately and validly and to communicate them effectively to other parties in need.
5. Mastering SOP (Standard Operational Procedure): maintenance, vehicle testing, and occupational health safety (K3).
6. Able to adapt in applying and utilizing science, technology, and / or art in the automotive engineering field in solving problems in the business world and industry.

SPECIFIC SKILLS

1. Able to complete work with various methods based on established SOP in achieving work objectives
2. Able to use, maintain and calibrate automotive equipment to carry out work
3. Able to carry out and organize the process of measuring and testing workpieces according to the SOP.
4. Able to identify and solve problems in the automotive sector using data analysis based on SOP.
5. Able to understand and apply the basic principles of entrepreneurship in work
6. Able to understand and apply the basic concepts of management in work

DEPARTMENT OF MINING ENGINEERING

Department of Mining Engineering has two study programs, Mining Engineering Study Program for Diploma (D3) and Mining Engineering Study Program for Undergraduate (S1).

Mining Engineering Study Program (D3)

This program was established on April 16, 2001 with the establishment decree No.100 / Dikti / Kep / 2001 from the Director General of Higher Education and its operating license based on the Decree of the Director General of Higher Education, Ministry of National Education No.1870 / D / T / 2001 issued on June 1, 2001.

Currently, it has been accredited B until 2024 based on the BAN PT Decree No. 2422 / SK / BAN-PT / Akred / Dipl-III / VI / 2019.

Vision

Become an excellent vocational study program in Southeast Asia in producing mining engineering intermediate experts

who are environmentally friendly professionals and devote to God Almighty

Mission

1. Organizing professional Mining Engineering Associate Expert education.
2. Developing applied research in the mining technology sector with an environmental perspective.
3. Contribute to improving the quality of community life through community service activities.
4. Producing quality human resources through a continuous learning process.

Objectives

1. To produce Qualified Associate Experts in the mining sector according to the needs of the industrial world.
2. To produce pioneers in the development of mining technology with an environmental perspective.
3. To develop and apply appropriate technology in the mining sector.

Graduate profiles

1. Assistant Foreman in mining exploration activities
2. Assistant Group Leader in Mining Activities
3. Assistant Mine Planner (Junior Mine Plan)
4. Mine Explosives
5. Technical Team of the Mining Service and related agencies.

Graduate Learning Outcomes

ATTITUDE

1. Be fearful of God Almighty and able to show a religious attitude, honesty and patience;
2. Uphold human values in carrying out duties based on religion, morals and ethics;
3. Internalizing academic values, norms and ethics;
4. Being a citizen with full of pride and love to the country, who have nationalism and a sense of responsibility to the state and nation;
5. Respect the diversity of cultures, views, religions and beliefs, as well as the original opinions or findings of others;
6. Contribute to the improvement of the quality of life in society, nation, state, and progress of civilization based on Pancasila;
7. Cooperate and have social sensitivity and concern for the community and the environment;
8. Obey the law and discipline in social and state life;
9. Internalize the spirit of independence, struggle and entrepreneurship; and
10. Demonstrate an attitude of responsibility for work in their field of expertise independently.

KNOWLEDGE

1. Mastering the theoretical concepts in general natural science, engineering principles, engineering science and engineering design required for topographic and geological mapping in prospecting, and mining exploration;
2. Mastering theoretical concepts in general, methods of testing the physical and mechanical properties of soil / rock, as well as polygon measurements, calculating distances and differences in land surface height, implementing stake out, calculating the area and volume of materials in mining activities.
3. mastering general theoretical concepts regarding mining prospecting, exploration (mapping,

exploration drilling, and sampling), drilling methods, blasting methods, coal and mineral extraction along with the technology used to support mining activities;
4. Mastering the knowledge of SNI Amendment 1-SNI 13-5014-1998 ICS73.020, POP, KJL Class II and Kepmen No. 555 of 1995;
5. Mastering the current principles and issues in economic, social, ecological issues related to mining activities in general;
6. Mastering knowledge of verbal and technical communication techniques (data and images);
7. Mastering knowledge about the latest and latest computing technology developments in mining activities;
8. Mastering the principles and work procedures of drawing studios and geotechnical laboratory activities, surveys, computers, general theoretical concepts of the implementation of safety, occupational health (K3) and protecting the environment, implementing accident risk control.

GENERAL SKILLS

1. Able to complete wide-scope work and analyze data with a variety of appropriate methods, both those that are not yet standardized and by analyzing data;
2. Able to show quality performance and measurable quantity;
3. Able to solve work problems with the nature and context according to the field of applied expertise based on logical, innovative thinking, and be responsible for the results independently;
4. Able to compile reports on results and work processes accurately and validly and communicate them effectively to other parties who need them;
5. Able to work together, communicate, and be innovative in their work;
6. Able to be responsible for the achievement of group

work

7. Able to supervise and evaluate the completion of work assigned to workers who are under their responsibility;
8. Able to carry out the self-evaluation process of the work group under their responsibility, and to manage the development of work competencies independently;

SPECIFIC SKILLS

1. Able to apply mathematics, science and engineering principles to solve clearly defined engineering problems in the mining sector which includes exploration and exploitation activities;
2. Able to make a map of the progress and layout of mining infrastructure facilities by applying the determination of production targets, selection of mining methods, selection of equipment, technical evaluation to determine the feasibility of mining, implementation of environmental management in accordance with Amdal documents (RKL and RPL) and dealing with slope environmental damage.
3. Able to identify causes of mining accidents and carry out a hierarchy of hazard control based on Ministerial Decree No. 555 of 1995;
4. Able to carry out topographic measurements and geological mapping at mining sites to realize the components, processes and parts of a well-defined mining system design that meet specific needs with proper consideration of occupational safety and health and environmental issues;
5. Able to apply geological engineering & sampling, mine progress mapping, loading, loading & transportation, energy, work materials, spare parts, processing & environmental monitoring for production and re-vegetation;
6. Able to display topographic contours using CAD

software; calculate coal reserves using Minescape and Surpac software and supervise mining activities (drilling and blasting, soil stripping, coal getting) and processing

Mining Engineering Study Program (S1)

The Mining Engineering Study Program (S1) at UNP was established based on the Decree (SK) of the Director General of Higher Education No. 241 / DIKTI / Kep / 2009 dated 31 December 2009. This program was established as a response to the scarcity of professionals in the mining engineering field in Indonesia.

The Mining Engineering Study Program (S1) began accepting the first batch of students in 2010 and received B accreditation until 2023 based on the BAN PT Decree No. 310 / SK / BAN-PT / Akred / S / I / 2018.

Vision

Become an excellent study program in Indonesia in producing Bachelor of Mining Engineering graduates who professional, innovative and environmentally friendly based on devotion to God Almighty.

Mission

1. Organizing professional general education undergraduate mining engineering in open pit and underground mining.
2. Carry out research and study activities in the framework of developing science and technology in the mining engineering sector.
3. Apply the results of research activities and innovative studies in the mining engineering sector through community service activities

4. Develop and disseminate information technology in the mining engineering sector with an environmental perspective.
5. Participating in the intellectual life of the nation and being devoted to God Almighty

Objectives

1. To produce graduates in the field of general mining engineering who are professionals in open pit and underground mining
2. To produce innovative research and studies in the framework of developing science and technology in the mining engineering sector
3. To carry out community service activities by applying mining science and technology.
4. To produce graduates who are able to develop and disseminate information on technology in the mining engineering sector with an environmental perspective.
5. To produce graduates who are intelligent and devoted to God Almighty.

Graduate Profiles

1. Prospective mining engineers who are able to work as planners, executors, supervisors, and managers in the mining engineering field / work in companies, contractors, mining consultants
2. Prospective researchers / reviewers of problems in the mining engineering sector and publish their results in scientific forums.
3. Prospective entrepreneurs who can enter into entrepreneurship in the mining sector.

Graduate Learning Outcomes

ATTITUDE

1. Be fearful of God Almighty and able to show a religious attitude, honesty and patience;
2. Uphold human values in carrying out duties based on religion, morals and ethics;
3. Internalizing academic values, norms and ethics;
4. Being a citizen with full of pride and love to the country, who have nationalism and a sense of responsibility to the state and nation;
5. Respect the diversity of cultures, views, religions and beliefs, as well as the original opinions or findings of others;
6. Contribute to the improvement of the quality of life in society, nation, state, and progress of civilization based on Pancasila;
7. Cooperate and have social sensitivity and concern for the community and the environment;
8. Obey the law and discipline in social and state life;
9. Internalize the spirit of independence, struggle and entrepreneurship; and
10. Demonstrate an attitude of responsibility for work in their field of expertise independently.

KNOWLEDGE

1. Mastering the theoretical concepts in general natural science, engineering principles, engineering science and engineering design required for topographic and geological mapping in prospecting, and mining exploration;
2. Mastering natural science concepts and principles in applying engineering mathematics
3. Mastering the principles and design of exploration and exploitation planning and design
4. Mastering the current principles and issues in the

economy and society related to the mining industry globally

5. Mastering the concepts, principles and techniques of post-mining environmental restoration
6. Mastering knowledge of the latest and most up-to-date communication techniques and technology developments related to the mining industry and globally.Mastering the current principles and issues in economic, social, ecological issues related to mining activities in general;
7. Mastering knowledge of verbal and technical communication techniques (data and images);
8. Mastering knowledge about the latest and latest computing technology developments in mining activities;
9. Mastering the principles and work procedures of drawing studios and geotechnical laboratory activities, surveys, computers, general theoretical concepts of the implementation of safety, occupational health (K3) and protecting the environment, implementing accident risk control.

GENERAL SKILLS

1. Able to apply logical, critical, systematic and innovative thinking in the context of the development or implementation of science and technology that pays attention to and applies humanities values in accordance with the mining engineering expertise.
2. Able to show independent, quality and measurable performance.
3. Able to study the implications of the development or implementation of technological science that takes into account and applies humanities values in accordance with mining engineering expertise based on scientific principles, procedures and ethics in order to produce solutions, ideas, designs.
4. Able to compile a scientific description of the results

of the study above in the form of a thesis or final project report, and upload it on the college website.

5. Able to make decisions appropriately in the context of problem solving in the field of mining engineering expertise, based on the results of information and data analysis.
6. Able to maintain and develop networks with mentors, colleagues, peers both inside and outside the institution.
7. Able to be responsible for the achievement of group work results and to supervise and evaluate the completion of work assigned to workers under their responsibility.
8. Able to carry out the self-evaluation process of the work group under their responsibility, and able to manage learning independently.
9. Capable of documenting, storing, securing, and recovering data to ensure validity and prevent plagiarism.

SPECIFIC SKILLS

1. Graduates of the mining engineering study program have the ability to solve complex engineering problems in the mining engineering field which includes exploration and exploitation
2. Able to apply mathematics, science and engineering principles to solve complex engineering problems in the mining sector which includes exploration and exploitation activities.
3. Able to identify, formulate and analyze complex engineering problems in the mining sector based on engineering considerations and principles.
4. Able to formulate alternative solutions to complex engineering problems in the mining sector by taking into account economic, public health and safety, cultural, social and environmental factors.
5. Able to design mining processes, systems and

operations with an analytical approach and taking into account technical standards, work aspects, reliability, ease of application, sustainability, and taking into account economic, public health and safety, cultural, social and environmental factors.

6. Able to implement post mining environmental restoration program in a responsible manner.
7. Able to research and investigate complex engineering problems in the mining sector using basic engineering principles and by carrying out research, analysis, data interpretation and information synthesis to provide solutions.
8. Able to select resources and utilize appropriate engineering design and analysis tools based on information and computing technology to carry out design, planning, implementation and control of mining operations which include exploration and exploitation activities.
9. Have strong, creative and innovative entrepreneurial skills in the mining engineering field.

DEPARTMENT OF ELECTRICAL ENGINEERING

The Department of Electrical Engineering, Faculty of Engineering, UNP has three study programs, namely: (1) Electrical Engineering Education Study Program for Bachelor Degree (S1), (2) Electrical Engineering Study Program for Diploma (D3), and (3) Industrial Electrical Engineering for Diploma (D4).

Electrical Engineering Education Study Program (S1)

Currently, Electrical Engineering Education Study Program (S1) has received A accreditation from BAN PT and been certified internationally by AUN QA since 2019.

Vision

Become one of the preeminent Electrical Engineering Education Study Program in the fields of education, science, and technology, based on moral values, religion and devotion to God Almighty in 2020

Mission

1. Organizing qualified education in the field of Electrical Engineering Education based on devotion to God Almighty.
2. Develop research activities and disseminate research results in the field of Electrical Engineering Education at the local and national levels.
3. Organizing community service activities as an effort to apply knowledge in the field of Electrical Engineering Education for the advancement of science and education.
4. Increase independence in the management of the Study Program regarding Good Governance

Objectives

1. To produce teaching staff for Vocational High Schools (SMK) in the field of Electrical Engineering and instructors at the Skills Training Center in the industry who are highly competitive professionals based on devotion to God Almighty.
2. To produce qualified and useful research in the field of Electrical Engineering that is adaptive to advances in science and technology in accordance with the demands of society.
3. To carry out community service activities in the form of fast technology that are beneficial to society.

Graduate Profiles

Profile	Profile Description

Teacher	This profession includes all the teacher working at Vocational High School and other educational institution (Perpres No. 38 Tahun 1992)
Educational staff	Members of the community who dedicate themselves directly in the provision of education. Including principals, supervisor, administrative staff, library staff, laboratory staff, technicians, managers,etc in the field of education. (Perpres No. 38 Tahun 1992)
Experts in Electrical Engineering	Become an expert in all sector of Electrical Engineering (UU RI No. 30 Tahun 2009)
Entrepreneur	Have the ability in entrepreneurship related to electrical engineering (No. UU No.20 Tahun 2003 pasal 3)

Graduate Competencies

GENERAL COMPETENCIES

1. Applying logical, critical, systematic, and innovative thinking in the context of developing or implementing science and / or technology in accordance with their field of expertise;
2. Examining the implications of developing or implementing science, technology or art in accordance with their expertise based on scientific principles, procedures and ethics to produce solutions, ideas, designs, or art criticism and compile scientific descriptions of the results of their studies in the form of a thesis or final project report;
3. Making decisions appropriately in the context of problem solving in their field of expertise, based on the results of analysis of information and data;
4. Developing and maintaining networks with mentors, colleagues, peers both inside and outside the institution.

SPECIFIC COMPETENCIES

1. Able to facilitate, evaluate, and carry out learning process and learning outcomes in a professional manner, as well as community partnerships within the framework of vocational education in carrying out duties as a professional teacher .
2. Successfully compiling Scientific Work in accordance with scientific procedures based on analysis, information and data and being able to interpret and communicate accurately and accountably in order to solve problems and phenomena that occur related to the profession.
3. Routinely analyze and solve technical problems related to electric power engineering by applying the principles of Mathematics, Physics and Chemistry.
4. Identify and solve current and future Electrical Power Engineering problems using basic electricity laws and theories within a broader application framework.
5. Applying new technology to design, analysis and application of measurement systems related to the Quantity and Quality of Electrical Power Engineering to meet the needs of society in a professional and ethical manner.
6. Analyzing the application of materials related to Electrical Power Engineering for the development of electricity energy development.
7. Selecting and Determining for design and implementation purposes related to Electrical Power Engineering for the use of electrical energy to meet the quality of life.
8. Implementing the Electrical Power Engineering safety system in the framework of securing equipment and the safety of mankind.

Electrical Engineering Study Program (D3)

Electrical Engineering Study Program (D3) is one out of three study programs available in the Electrical Engineering Department, Faculty of Engineering, UNP. This program provides Electrical Engineering education with the aim of producing Associate Experts in the field of electrical engineering.

Vision

Become an excellent Electrical Engineering Study Program in Diploma to produce intermediate experts in the electricity sector in Indonesia, based on moral values, religion and devotion to God Almighty in 2020

Mission

1. Organizing professional education for intermediate experts in the field of electricity
2. Developing and disseminating appropriate science and technology in the electricity sector with an environmental perspective
3. Improve the quality of human resources through a continuous learning process

Objectives

1. To produce graduates who are faithful and devoted to God Almighty
2. Producing graduates who have deep competencies and basic skills in the electricity sector
3. Producing graduates who are able to work as technicians in the fields of lighting installations, personnel, and industry.
4. To produce graduates who are able to work as technicians in the field of electrical driving in industry
5. To produce graduates who are able to manage work groups, report and be responsible comprehensively according to their fields of expertise
6. To produce graduates who are able to create creativity and innovation according to their fields of expertise.

Graduate Profiles

Profile	Profile Description
Technicians in the field of electric power	1. .Able to master basic skills in the electricity sector.

distribution	2. Able to work as a technician in the fields of lighting installation, power, and industry 3. Able to manage work groups, report and be responsible comprehensively according to their areas of expertise
Technicians in the field of electrive drive in industry	1. Able to work as a technician in the field of electric drive in industry. 2. Able to manage work groups, report and be responsible comprehensively according to their areas of expertise.
Entrepreneurs	Able to create creativity and innovation according to their area of expertise

Graduate Competencies

GENERAL COMPETENCIES

1. Able to complete a wide scope of work by choosing a variety of suitable methods, both those that are not and those that are standardized;
2. Able to demonstrate quality and measurable performance
3. Able to solve work problems with the nature and context in accordance with the field of applied expertise based on logical thinking, innovative, and responsible for the results independently
4. Able to compile reports on results and work processes accurately and validly and communicate them effectively to other parties in need
5. Able to work together, communicate, and be innovative in their work
6. Able to be responsible for the achievement of the results of group work assigned to workers under their responsibility
7. Able to carry out the self-evaluation process of the work group under their responsibility, and to manage the development of work competencies independently
8. Able to document, store, secure, and recover data to ensure

validity and prevent plagiarismApplying logical, critical, systematic, and innovative thinking in the context of developing or implementing science and / or technology in accordance with their field of expertise;

SPECIFIC COMPETENCIES

1. Able to apply mathematical and natural science principles, as well as engineering principles into technical practice and procedures for maintenance of 20 KV medium voltage electrical installations and solve problems in low voltage eletricity side.
2. Able to identify and solve engineering problems in low voltage installations that are clearly defined by referring to SNI, IEC, and other related standards, as well as selecting methods of installation and maintenance of electrical installations by taking into account economic, health, public safety and environmental factors.
3. Able to plan, and implement low-voltage electrical installations in accordance with the required standards and requirements and pay attention to economic, health, safety and environmental factors.
4. Able to plan and carry out maintenance operations of electrical installations (up to a medium voltage of 20 KV) and electrical equipment in accordance with applicable electrical network maintenance operating standards by taking into account economic, health, public safety and environmental factors.
5. Able to design low voltage electrical installations and present the design results in the form of manual technical drawings and / or supporting software
6. Able to operate and control electrical equipment and machines using VSD (Variable Speed Drive) technology-based equipment, programmable control, computerized systems, and information technology.
7. Able to test and measure the feasibility of electrical installations based on procedures and standards (SNI, IEC, SPLN), and present the results of analysis based on the chosen method.
8. Able to follow the latest technical developments and technology related in the electricity field

Industrial Electrical Engineering Study Program for Diploma (D4).

Vision

Become one of the preeminent and excellent study program in Southeast Asia in the Field of Industrial Electrical Engineering and Adaptive to the Advancement of Science and Technology, based on moral values, religion and devotion to God Almighty in 2020

Mission

1. Organizing quality education in the field of technology based on devotion to God Almighty.
2. Carrying out research activities and disseminating knowledge, research results, and innovative learning models both at the national and international levels.
3. Organizing community service activities as an effort to apply technology for the advancement of the nation.
4. Improve study program governance
5. Increase local, national and international cooperation.
6. Developing a foundation and implementing policies towards one of the international standard study programs.

Objectives

1. To produce professional staff who are moral and religious in the field of technology.
2. Producing graduates who are competitive and adaptive to changes in the global environment.
3. Creating smart, polite, physically and mentally healthy students.
4. Producing scientific works and innovative technological models.

5. Disseminating science, research results, and technological models at the national and international levels.
6. Increasing the quality and quantity of technology implementation through community service.
7. Assisting community in solving social problems by utilizing research results.
8. Implementing the realization of good governance.
9. Implementing the quality services according to customer needs.
10. To establish cooperation at the local, national and international levels.
11. The realization of becoming an excellent study programs in the Southeast Asia region in 2020.
12. The development of an academic culture with a global perspective.

Graduate Competencies

GENERAL COMPETENCIES

1. Mastering the theoretical concepts required for designing, manufacturing, operating and maintaining electricity systems and industrial automation.
2. Able to apply mathematics, science, and engineering principles to solve complex engineering problems in electricity systems and industrial automation.
3. Able to find the source of engineering problems in the electricity and industrial automation sector through a process of investigation, analysis, interpretation of data and information based on engineering principles.
4. Able to operate, maintain and repair the electricity system and industrial automation
5. Be able to formulate alternative solutions to engineering problems in industrial automation systems and industrial electricity by taking into account economic, public health and

safety, cultural, social and environmental factors.

SPECIFIC COMPETENCIES

1. Mastering communication techniques and the development of information technology in the electricity and industrial automation sector
2. Able to perform data information analysis and analysis of engineering problems in industrial automation systems and industrial electricity
3. Able to select resources and utilize appropriate engineering design and analysis tools based on information and computing technology to carry out engineering activities in industrial automation systems and industrial electricity
4. Able to conduct comprehensive supervision of the electricity system operation process and industrial automation system by taking into account technical, economic, K3 and environmental aspects.

DEPARTMENT OF ELECTRONIC ENGINEERING

The Electronic Engineering Department currently has 3 (three) study programs. Two undergraduate education programs and one diploma program 3 (three). These three study programs have been certified by BAN-PT with an accreditation value of A for S1 Informatics Engineering Education study program, B for Electronic Engineering Education S1 study program and B for D3 Electronic Engineering study program. Apart from the three study programs, the Department of Electronic Engineering also has an operating permit for the D4 Animation study program and will accept new students for the 2020/2021 academic year.

Electronics Engineering Education Study Program (S1)

Vision

To become a leading study program at the national level in the field of electronic engineering education that is

adaptive and innovative to the development of science and technology based on IMTAQ and professional attitudes.

Mission

1. Organizing educational process in the field of Electronic Engineering Education based on IMTAQ and Professional Attitude.
2. Conducting research and play an active role in self-development in the field of electronic science and engineering,
3. Conducting community services in society in order to increase the role of institutions as information centers to anticipate various problems in the field of Electronic Engineering Education.
4. Equip graduates with professional competence and skills and have an entrepreneurial attitude so that they can meet the needs of educational and industrial stakeholders.

Objectives

1. Increasing the knowledge and skills in the field of Electronic Engineering Education
2. Providing learning process oriented in applied science to support engineering and educational development in the field of electronic engineering.
3. Provide guidance in the design and development of electronic engineering.
4. Fostering the motivation of graduates to have a professional, innovative and productive attitude.

Profiles and Competencies of Graduates of the Electronic Engineering Education Study Program

Profile	Main Competencies	Specific Competencies

Profile	Main Competencies	Specific Competencies
Teacher in Vocational School of Technology and Engineering in the field of Electronic Engineering Education	(1) Have the ability and skills as a teacher / instructor in vocational and industrial schools in the field of electronics engineering (2) Have the ability and skills as professionals in the field of electronic engineering in industry.	**Concentration of Audio and Video Electronics** (1) Have the ability to design, implement, maintain and maintain audio and video devices. Having the ability to install, operate, detect and troubleshoot problems in audio and video systems, (3) Have competitive abilities in the audio and video field. **Concentration of Industrial and Control Electronic** 1. Have the ability to design, implement, maintain and maintain instrumentation, industrial and control devices. 2. Having capabilities in installation, operation, detection and troubleshooting of instrumentation,

Profile	Main Competencies	Specific Competencies
		industrial and control systems, 3. Have competitive abilities in the field of instrumentation, industry and control. **Concentration of Telecommunication Electronic** 1. Have the ability to design, implement, maintain and maintain telecommunication equipment 2. Have the ability to install, operate, detect and solve problems in telecommunication systems 3. Have a competitive ability in the field of telecommunications.

Informatics Engineering Education Study Program (S1)

To become a leading higher education institution at the national level in the field of Informatics and Computer Engineering Education that is adaptive and innovative to

the development of science and technology based on IMTAQ and professional attitudes.

Mission

1. Organizing the educational process in the field of Computer and Informatics Engineering Education based on IMTAQ and professional ethics,
2. Conducting research and play an active role in self-development in the fields of science, informatics and computer engineering,
3. Providing community service personnel in enhancing the role of national institutions as information centers to anticipate various problems in the field of Computer and Information Engineering Education,
4. Equip graduates with professional competence and skills and have an entrepreneurial attitude so that they can meet the needs of educational and industrial stakeholders.

Objectives

1. To increase the knowledge and skills in the field of informatics and computer engineering,
2. To provide learning activities oriented towards applied science to support the development of informatics and computer techniques,
3. To provide guidance in the design and development of information technology and computers,
4. Fostering the motivation of graduates so that they have a professional and productive innovative attitude.

Profiles and competencies of graduates of the Informatics Engineering Education Study Program

Profile	Main Competencies	Specific Competencies
Teacher in the Informatics Engineering Education	1. Have the ability and skills as a teacher / instructor in vocational schools, public schools, and industrial education and training in the field of informatics and computer engineering 2. Having the ability and skills as professionals in the field of informatics and computer engineering. 3. Having the ability in planning, implementing and evaluating teaching and learning activities 4. Having skills in classroom management, counseling, and school organization. 5. Having an	**Concentration of Computer and Network** 1. Memiliki kemampuan dalam perancangan, implementasi, perawatan dan pemeliharaan perangkat komputer dan jaringan, 2. Memiliki kemampuan dalam instalasi, operasi, pendeteksian dan penanggulangan masalah pada sistem komputer dan jaringan, 3. Memiliki kemampuan yang kompetitif dalam teknik komputer dan jaringan. **Concentration of Software Engineering** 1. Having the ability to design, implement, maintain and maintain

Profile	Main Competencies	Specific Competencies
	adaptive ability to the dynamics of science and technology (IPTEK), 6. Having the ability to be creative, dynamic and innovative in entrepreneurship.	software, 2. Having the ability to install, operate, detect and troubleshoot software problems, 3. Have a competitive ability in the field of software engineering, **Concentration of Multimedia** 1. Having the ability to design, implement, maintain and maintain multimedia devices, 2. Having the ability to install, operate, detect and solve problems on multimedia devices, 3. Having competitive abilities in multimedia systems. **Concentration of Information and Learning Technology** 1. Having the ability to design, implement

Profile	Main Competencies	Specific Competencies
		Information Technology in Learning, 2. Having the ability to install, operate, detect and solve problems in Information Technology in Learning, 3. Have a competitive ability in the field of Information Technology in Learning.

Electronics Engineering Study Program (D3)

Vision

To become a leading study program in the field of adaptive and innovative electronic engineering based on IMTAQ and Professional Attitudes.

Mission

1. Organizing the educational process in the field of Computer and Electronic Engineering based on IMTAQ and professional ethics,
2. Conducting research and play an active role in self-development in the fields of Electronic Engineering
3. Providing community service personnel in enhancing the role of national institutions as information centers to anticipate various problems in the field of Electronic Engineering.

4. Equip graduates with professional competence and skills and have an entrepreneurial attitude so that they can meet the needs of educational and industrial stakeholders.

Objectives

1. To increase the knowledge and skills in the field of Electronic Engineering
2. To provide learning activities oriented towards applied science to support the development of informatics and computer techniques,
3. Fostering the motivation of graduates so that they have a professional and productive innovative attitude.

Profiles and competencies of graduates of the Electronic Engineering Study Program (D3)

Profile	Main Competencies	Specific Competencies
Intermediate experts in the field of Electronic Engineeringa	1. Have the ability and skills as intermediate experts in the field of Electronic Engineering 2. Have the ability to adapt to the dynamics of science and technology (IPTEK). 3. Have the entrepreneu	**Concentration on Computer Systems Technology** 1. Have the ability to install, operate, detect and troubleshoot computer hardware and software problems, 2. Have the ability to implement, maintain and maintain computer software and hardware, 3. Have the ability in planning and developing computer networks, 4. Have the ability to entrepreneur who is

Profile	Main Competencies	Specific Competencies
	rship abilities with creative, dynamic and innovative thought.	creative, dynamic and innovative, 5. Have competitive abilities in the field of computer technology, **Concentration of Control and Instrumentation** 1. Have the ability to install, operate, detect and troubleshoot the instrumentation and control systems. 2. Have the ability to design, implement, maintain and maintain instrumentation and control devices. 3. Have creative, dynamic and innovative entrepreneurial skills, 4. Have competitive abilities in the field of instrumentation and control. **Concentration of Computer Network Engineering** 1. Have the ability in designing, implementing, maintaining and maintaining computer and network devices, 2. Have the ability to install, operate, detect and solve problems in computer and network engineering, 3. Have the ability to

Profile	Main Competencies	Specific Competencies
		install, operate, detect and solve problems in the administration of computer network systems, 4. Have competitive abilities in Computer and Network Engineering. 5. Have the ability of creative, dynamic and innovative entrepreneurs.

TEACHING STAFF IN FACULTY OF EGINEERING, UNP

No.	Code	Name	Educational Degree
Department of Electrical Engineering			
1	5214	Drs. Aslimeri, MT	S2
2	5215	Drs. Syamsuarnis, M.Pd	S2
3	5217	Drs. Aswardi, MT	S2
4	5218	Dr. Usmeldi, M. Pd	S3
5	5219	Dr. Sukardi, MT	S3
6	5220	Drs. Hambali, M.Kes	S2
7	5221	Prof. Drs. Ganefri, M. Pd, Ph,D	S3
8	5222	Drs. Hendri, MT, Ph.D	S3
9	5223	Dr. Ta'ali, MT	S3
10	5224	Oriza Candra, ST, MT	S2
11	5225	Irma Husnaini, ST, MT	S2
12	5226	Krismadinata, ST, MT, Ph.D	S3
13	5227	Dr. Hansi Effendi, ST, M.Kom	S3
14	5228	Ali Basrah Pulungan, ST, MT	S2
15	5229	Ichwan Yelfianhar, ST, M.Eng.Sc	S2
16	5231	Risfendra, S.Pd, MT, Ph.D	S3
17	5233	Dr. Mukhlidi Muskhir, S.Pd, M.Kom	S3
18	5235	Asnil, S.Pd, M.Eng	S2
19	5236	Dr. Muldi Yuhendri, S.Pd, MT	S3
20	5237	Hastuti, ST, MT	S2
21	5238	Habibullah, S.Pd, MT	S2
22	5239	Ir. Riki Mukhaiyar, ST.,MT, Ph.D	S3
23	5240	Fivia Eliza, M.Pd	S2
24	5241	Elfizon, S.Pd, M.T	S2
25	5242	Dwiprima Elvanny Myori, S.Si, M.Si	S2
26	151014	Juli Sardi, S.Pd, MT	S2
27	5216	Dr. Ahyanuardi, M.T	S3

No.	Code	Name	Educational Degree
28	5213	Dr. Ridwan, M.Sc.Ed	S3
29	0232	Citra Dewi, S.Pd, M.Eng	S2
30	171019	Doni Tri Putra Yanto, S.Pd, M.Pd	S2
31	171033	Hamdani, S.Pd, M.Pd.T	S2
32	171055	Rahmat Hidayat, S.Pd, M.Pd.T	S2
33	171058	Ricky Maulana, S.T, M.T	S2
34	172023	Erita Astrid, S.T, M.S	S2
35	182030	Nevi Faradina, S.T., M.T.	S2
Department of Electronic Engineering			
1	5310	Prof. Dr. Kasman Rukun, M. Pd	S3
2	5311	Dra. Nelda Azhar, M.Pd	S2
3	5313	Drs. Hanesman, MM	S2
4	5314	Drs. Zulhendra, M.Kom	S2
5	5316	Drs. Putra Jaya, M.T	S2
6	5317	Dr. Elfi Tasrif, MT	S3
7	5318	Drs. Denny Kurniadi, M.Kom	S2
8	5319	Drs. Efrizon, MT	S2
9	5320	Muhammad Adri, S.Pd, MT	S2
10	5321	Zulwisli, S.Pd, M.Eng	S2
11	5322	Drs. Legiman S, MT	S2
12	5323	Dr. Edidas, MT	S3
13	5324	Khairi Budayawan, S.Pd	S2
14	5325	Dr. Muhammad Anwar, S.Pd, MT	S3
15	5326	Ahmaddul Hadi, S.Pd, M.Kom	S2
16	5327	Dr. Dedy Irfan, S.Pd, M.Kom	S3
17	5328	Drs. Almasri, MT	S2
18	5329	Dony Novaliendry, M.Kom	S2
19	5330	Yasdinul Huda, S.Pd, MT	S2
20	5331	Titi Sri Wahyuni, S.Pd, M.Eng	S2
21	5332	Oktoria, S.Pd, MT	S2

No.	Code	Name	Educational Degree
22	5333	Nurindah Dwiyani, S.Pd, M.T	S2
23	5334	Thamrin, S.Pd., MT.	S2
24	5335	Delsina Faiza, ST, MT	S2
25	5336	Dr. Asrul Huda, S.Kom., M.Kom	S3
26	5337	Yeka Hendriayani, S.Kom., M.Kom	S2
27	5338	Ika Parma Dewi, M.Pd.T	S2
28	5339	Vera Irma Delianti, M.Pd.T	S2
29	5340	Ilmiyati Rahmy Jasril, S.Pd, M.Pd.T	S2
30	171075	Hadi Kurnia Saputra, S.Pd, M.Kom	S2
31	171073	Syukhri, ST, M.CIO	S2
32	0228	Igor Novid, S.T, M.T,	S2
33	0268	Lativa Mursyida, S.Pd, M.Pd.T	S2
34	171024	Fadhli Ranuharja, S.Pd, M.Pd.T	S2
35	171031	Geovanne Farell, S.Pd, M.Pd.T	S2
36	172072	Rizkayeni Marta, S.Pd, M.Pd.T	S2
37	181016	Bayu Ramadhan Fajri, S.St., M.Ds.	S2
38	182038	Sartika Anori, S.Pd., M.Pd.T.	S2
39	192042	Winda Agustiarmi, S.Pd, M.Pdt	S2
40	191020	Agariadne Dwingo Samala,S.Kom, M.PdT	S2
41	192039	Dr. Resmi Darni, S.Kom, M.Kom	S3
Department of Mechanical Engineering			
1	5412	Prof. Dr. Suparno, M. Pd	S3
2	5415	Prof. Dr. Nizwardi Jalinus, M.Ed	S3
3	5421	Drs. Hasanuddin, MS	S2
4	5423	Prof. Dr. Ambiyar, M.Pd	S3
5	5429	Dr. Refdinal, MT	S3
6	5430	Drs. Yufrizal A, M.Pd	S2
7	5431	Dr. Waskito, MT	S3
8	5432	Drs. Abd. Aziz, M.Pd	S2
9	5434	Drs. Muhammad. Thaufiq Pinat, MDP	S2

No.	Code	Name	Educational Degree
10	5436	Drs. Purwantono, M.Pd	S2
11	5437	Drs. Syafri Jamain , M.Pd	S2
12	5439	Drs. Jasman, M.Kes	S2
13	5441	Drs. Nelvi Erizon, M.Pd	S2
14	5442	Drs. Nofri Helmi, M.Kes	S2
15	5443	Drs. Irzal, M.Kes	S2
16	5445	Dr. Arwizet K, ST, MT	S2
17	5446	Delima Yanti Sari, ST, MT, PhD	S3
18	5447	Dr.Eng Yolli Fernanda, ST, MT	S3
19	5448	Rifelino, S.Pd, MT	S2
20	5449	Hendri Nurdin, MT	S2
21	5450	Dr. Ir. Mulianti, MT	S3
22	5451	Eko Indrawan, S.Pd., M.Pd	S2
23	5452	Primawati, S.Si, M.Si	S2
24	5453	Budi Syahri, S.Pd, M.Pd.T	S2
25	5425	Drs. Syafri Jamain, M.Pd	S2
26	5440	Ir. Syahril, M.Sc, Ph.D	S3
27	061001	Rodesri Mulyadi, S.T, M.T	S2
28	0265	Febri Prasetya, S.Pd, M.Pd.T	S2
29	171015	Bulkia Rahim, S.Pd, M.Pd.T	S2
30	171044	Junil Adri, S.Pd, M.Pd.T	S2
31	171054	Rahmat Azis Nabawi, S.Pd, M.Pd.T	S2
32	181001	Andril Arafat, PhD	S3
33		Sri Rizky, PhD	S3
Department of Automotive Engineering			
1	5504	Prof. Dr. Nasrun	S3
2	5508	Dr. R. Chandra, M. Pd	S3
3	5511	Drs. Erzeddin Alwi, M.Pd	S2
4	5512	Prof. Dr. Wakhinuddin Simatupang, M. Pd	S3
5	5513	Drs. Bahrul Amin, M.Pd	S2

No.	Code	Name	Educational Degree
6	5515	Dr. Hasan Maksum, MT	S2
7	5516	Drs. Martias, M.Pd	S2
8	5517	Drs. Andrizal, M.Pd	S2
9	5518	Drs. M. Nasir, M.Pd	S2
10	5519	Donny Fernandez, S.Pd, M.Sc	S2
11	5520	Wagino, S.Pd, M.Pd.T	S2
12	5521	Irma Yulia Basri, S.Pd, M.Eng	S2
13	5522	Rifdarmon, S.Pd	S1
14	5523	Dr. Ir. Remon Lapisa, ST, MT, M.Sc	S3
15	5524	Milana, ST, M.Sc	S2
16	5525	Dwi Sudarno Putra, S.T., M.T.	S2
17	5526	Toto Sugiarto, S.Pd, M.Si	S2
18	5527	Wawan Purwanto, S.Pd., M.T, Ph.D	S3
19	5511	Drs. Erzeddin Alwi, M.Pd	S2
20	5503	Drs. Faisal Ismet, M.Pd	S2
21	151015	Nuzul Hidayat, S.Pd, MT	S2
22	5501	Prof. Dr. Jalius Jama, M.Ed	S3
23	0206	Randi Purnama Putra, S.Pd, M.T	S2
24	0247	M Yasep Setiawan, S.Pd, M.T	S2
25	0279	Wanda Afnison, S.Pd, M.T	S2
26	0281	Dori Yuvenda, S.Pd, M.T	S2
27	0285	Ahmad Arif, S.Pd, M.T	S2
28	171018	Dedi Setiawan, S.Pd, M.Pd.T	S2
29	171035	Hendra Dani Saputra, S.Pd, M.Pd.T	S2
30	5506	Drs. Darman, M.Pd	S2
31	191026	Muslim, S.Pd.,M.Pd.T	S2
Department of Mining Engineering			
1	5164	Adree Octava, S.Si, M.T	S2
2	5161	Ansosry, ST, MT	S2
3	5158	Dedi Yulhendra, ST, MT	S2

No.	Code	Name	Educational Degree
4	5150	Dr. Fadhilah, S.Pd, M.Si	S3
5	5140	Dr. Murad, MT	S3
6	5139	Drs. Bambang Heriyadi, MT	S2
7	5128	Drs. Raimon Kopa, MT	S2
8	5143	Drs. Rusli, MT	S2
9	5126	Drs. Yunasril, M. Si	S2
10	5154	Heri Prabowo, ST, MT	S2
11	5153	Mulya Gusman, ST, MT	S2
12	5157	Rudy Anarta, ST.MT	S2
13	5159	Yoszi Mingsi Anaperta, ST, MT	S2
14	171043	Jukepsa Andas, S.Si, M.T	S2
15	171059	Rifky Pratama Putra, S.Si, M.T	S2
16	181021	Fachrul Rozi Ramadhan, S.T., M.T.	S2
17	181026	Harizona Aulia Rahman, S.T., M.Eng.	S2
18	182022	Jana Hafiza, S.T., M.T.	S2
19	181011	Riko Maiyudi, M.T	S2
20	191018	Rizto Salia Zakri, S.T.,M.T	S2
21	192034	Trigamela Saldy, S.T.,M.T	S2
Department of Civil Engineering			
1	5117	Prof. Ungsi Antara Oku Marmai, M.Ed	S3
2	5130	Drs. Revian Body, M.SA	S2
3	5131	Prof. Dr. M Giatman, M.SIE	S3
4	5132	Dr. Fahmi Rizal, M. Pd	S3
5	5133	Drs. Iskandar G Rani, M.Pd	S2
6	5134	Dr. Nurhasan Syah, M. Pd	S3
7	5137	Dr. Rijal Abdullah, MT	S3
8	5141	Drs. Juniman Silalahi, M. Pd	S2
9	5145	Oktaviani, ST, MT	S2
10	5146	Risma Apdeni, ST, MT	S2
11	5147	Henny Yustisia, ST, MT	S2

No.	Code	Name	Educational Degree
12	5151	Dr. Eng. Prima Yane Putri, ST, MT	S3
13	5152	Faisal Ashar, ST, MT, PhD	S3
14	5155	Dr. Eng. Nevy Sandra, ST, M.Eng	S3
15	5156	Totoh Andayono, ST, MT	S2
16	5160	Dr. Eng. Eka Juliafad, ST, M.Eng	S3
17	5162	Rusnardi Rahmat Putra, ST, MT, Ph.D.Eng	S3
18	5163	Fitra Rifwan, S.Pd, MT	S2
19	5165	Yuwalitas Gusmareta, S.Pd, M.Pd.T	S2
20	0322	Ari Syaiful Rahman Arifin, ST, MT	S2
21	5114	Dr. Azwar Inra, M.Pd	S3
22	5125	Dr. Indrati Kusuma Ningrum S, M.Pd	S3
23	5167	Prima Zola, ST, MT	S2
24	171052	Muvi Yandra, S.Pd, M.Pd.T	S2
25	171062	Rizky Indra Utama, S.T, M.Pd.T, M.T	S2
26	172009	Annisa Prita Melinda, S.T, M.T	S2
27	172043	Laras Oktavia Andreas, S.Pd, M.Pd.T	S2
28	172049	Nadra Mutiara Sari, S.Pd, M.Eng	S2
29	181005	Yaumal Arbi, ST, MT	S2
30	182017	Fani Keprila Prima, S.Pd., M.Pd. T.	S2
31	182041	Windry Novalia Jufri, S.Pd., M.Pd.	S2