



SEMESTER LEARNING PLAN (RPS)

STUDY PROGRAM OF S1 BUILDING ENGINEERING EDUCATION-DEPARTMENT OF CIVIL ENGINEERING
FACULTY OF ENGINEERING - STATE UNIVERSITY OF PADANG

COURSE NAME	CODE	MK family	SKS		SEM	Version
			Theory	Pract		
SCIENTIFIC WRITING AND SEMINAR PROCEDURES SCIENTIFIC PAPERS AND SEMINARS	SIP1.61.6202	Study Program Compulsory Courses	1	1	6	1
Responsible Lecturer	Dr. Rijal Abdullah, MT.			TTD Responsible Lecturer Dr. Rijal Abdullah, MT.		
<u>INFORMATION</u>	Dean of the Faculty of Engineering	Head of Civil Engineering Department	Chords. S1 Building Engineering Education Study Program			
	<u>Dr. Fahmi Rizal, M.Pd., MT</u> NIP. 195912041985031004	<u>Faisal Ashar, ST., MT., Ph. D.</u> NIP. 197501032003121001	<u>Drs. Revian Body, MSA.</u> NIP. 196001031985031003			
Learning Outcomes of Graduates (<i>Program Learning Outcomes = PLO</i>)	Study Program Graduate Learning Outcomes (CPL)					
	<ol style="list-style-type: none"> 1. Able to apply basic science knowledge (mathematics, natural sciences) and other multidisciplinary disciplines which form the basis for the field of Building Engineering Vocational Education in carrying out professional work in their respective fields (<i>Knowledge and Understanding</i>). <ol style="list-style-type: none"> 1.1. Able to show a good understanding and implement basic mathematical concepts to solve various problems in the field of building engineering. 1.2. Have a high understanding and can implement basic concepts of physics and chemistry (natural sciences) in the field of building engineering. 1.3. Have a high understanding and can implement the basic principles of basic engineering (mechanics, engineering drawings) in the field of building engineering. 					

2. Able to think critically and creatively in identifying, formulating, problem solving, evaluating various problems in the field of Building Engineering Vocational Education with the most appropriate and effective scientific method (*Engineering analysis, investigations and assessment*).
 - 2.1. Able to identify various technical problems in the field of building engineering.
 - 2.2. Able to analyze various technical problems in the field of building engineering.
 - 2.3. Able to evaluate various technical problems in the building sector.
 - 2.4. Able to communicate Engineering Analysis, Investigation and Assessment materials to students / training.
3. Have a reliable ability in the design, implementation and supervision of building engineering works (*Engineering design*).
 - 3.1. Able to realize work drawings in collaboration with various related parties.
 - 3.2. Able to manage building engineering work by paying attention to environmental, social, health and safety aspects.
 - 3.3. Able to supervise the implementation of building engineering work.
 - 3.4. Able to communicate Engineering Design material to learners.
4. Have a reliable ability to design, implement and evaluate the learning process in Building Engineering Vocational Education (*Education design*).
 - 4.1. Able to design curriculum and learning process in the field of building engineering.
 - 4.2. Able to implement, control, evaluate and improve the quality of the learning process
 - 4.3. Able to develop effective, efficient, and attractive learning media.
 - 4.4. Able to conduct research in the field of education.
5. Having the ability to adapt and innovate to the development of science and technology and implement it into educational goals and professional work by considering the non-technical risks that may occur (*Engineering practice*).
 - 5.1. Able to innovate and develop technology in the field of building engineering by considering social, economic and environmental aspects.
 - 5.2. Able to analyze environmental conditions in the planning, implementation and supervision of buildings.
 - 5.3. Implement information technology and computers into the planning, implementation, and supervision processes of buildings.
6. Having social and managerial competence, working together, communicating effectively, having an entrepreneurial character, having an environmental perspective and being aware of the importance of lifelong learning (*Transferable and soft skills*).
 - 6.1. Able to work creatively, innovatively, collaboratively, be careful, responsible, responsive to environmental changes.

- 6.2. Have curiosity, think critically, have an open mind, and are objective, have a national spirit, social sensitivity and have an environmental perspective.
- 6.3. Able to communicate effectively and work together in a team work.

	Subject Learning Outcomes (CPMK)	
Subject Learning Outcomes <i>(Course Outcome = CO)</i>	CPMK	CPL
	1. Understand the basic concepts of the scientific method(in the context of Educational Research), which includes: Definition of Scientific Methods, Essence of Scientific Work, Types and Research Procedures, Preparation of Writing Scientific Papers.	4.4
	2. Good mastery of scientific paper writing techniques from the linguistic aspect, which includes: How to Write Effective Sentences, Quotations and References, Bibliography, Summaries (Abstracts), Presenting Images, Tables, Graphics, or Schemes in a Scientific Work(in the context of Educational Research).	4.4
	3. Make a thesis proposal and broadcast material for the seminar(creative, innovative, collaborative, careful, responsible, responsive to environmental changes, curious, critical thinking, open-minded, and objective. Able to communicate effectively and work together in a team work)	6.1, 6.2, 6.3
	4. Conduct seminars well and clearly(creative, innovative, collaborative, careful, responsible, responsive to environmental changes, curious, critical thinking, open-minded, and objective. Able to communicate effectively and work together in a team work)	6.1, 6.2, 6.3
Short course descriptions	The study materials in this Scientific Paper & Seminar Writing Lecture include: Introduction, Scientific Methods, Types and Research Procedures, The Nature of Scientific Work, Preparation for Writing Scientific Papers, Framework for Writing Research Reports, Writing Effective Sentences, Quotations and References, Bibliography , Writing Summary (Abstract), Presenting Images, Tables, Graphs, or Schemes.	
References	Main (RU): 1 Akhadiah, Sabarti, Maidar G. Arsjad, & Sakura H Ridwan. 1991. Development of Indonesian Writing Ability. Jakarta: Erlangga. 2 American Psychological Association. "Electronic References." APA Style. 2003. APA Online. 23 January 2004. <http://www.apastyle.org/elecref.html> 3 APA (American Psychological Association) Citation Style Guide. 19 Sept. 2001. Bucknell University. < http://www.isr.bucknell.edu/research/apa.pdf >	

	4 Gaffar, Muhammad Fakry. 2004. Guidelines for Writing Scientific Papers. Bandung: UPI National Education Department.	
	5 Sudjana, Nana. 1988. Guidelines for the Compilation of Scientific Papers: Papers-Thesis-Dissertation. Bandung: Sinar Baru.	
	6 Course Material (Power Point).	
	Support (RP)	
	-	
Learning Media	Software:	Hardware:
		Computers, LCD projectors, whiteboards and devices
Team Teaching	Dr. Rijal Abdullah, MT. Risma Apdeni, ST., MT.	
Assessment	Mid-Term Exam, Final Exam, Independent Assignments (Classwork) & Group Assignments (Homework).	
Requirements Subject	Nothing	

LEARNING MATERIALS

Sunday	Competence to be achieved	Study Materials	Learning Methods and Strategies	Assignments / assignments	Assessment Criteria / Indicators	Reference
(1-2)	CPMK-1-2: [CPL- 4.4] 1. Explain the meaning of the scientific method and its characteristics.	Introduction and Understanding of the Scientific Method	The lecture was completed with broadcast material, Q&A, and assignments	<ul style="list-style-type: none"> • Make a lecture summary. • Doing Classwork 	Accuracy in: a. explain the meaning, and b. to characterize the scientific method	4, 5, and 6
(3)	CPMK-3: [CPL-4.4] State the types of research and explain the research procedures.	Types and Research Procedures	The lecture was completed with broadcast material, Q&A, and assignments	<ul style="list-style-type: none"> • Make a lecture summary. • Doing Classwork 	The accuracy of mentioning the types of research and explaining the procedure for conducting research	4, 5, and 6

Sunday	Competence to be achieved	Study Materials	Learning Methods and Strategies	Assignments / assignments	Assessment Criteria / Indicators	Reference
(4)	CPMK-4: [CPL- 4.4] Understand and explain the definition, purpose and function of scientific work.	The Essence of Scientific Work	The lecture was completed with broadcast material, Q&A, and assignments	<ul style="list-style-type: none"> • Make a lecture summary. • Doing Classwork 	Accuracy in explaining the definition, purpose, and function of scientific papers	4, 5, and 6
(5)	CPMK-5: [CP- 4.4] Understand the various things that must be prepared in writing a scientific paper.	Preparation of Writing Scientific Papers	The lecture was completed with broadcast material, Q&A, and assignments	<ul style="list-style-type: none"> • Make a lecture summary. • Doing Classwork 	Accuracy in mentioning various preparations that must be made in order to write a scientific paper	4, 5, and 6
(6)	CPMK-6: [CP- 4.4] Create an outline and outline of a research report.	Writing Framework and Composition of Research Report Writing	The lecture was completed with broadcast material, Q&A, and assignments	<ul style="list-style-type: none"> • Make a lecture summary. • Doing Classwork 	Accuracy in preparing essay frameworks and preparing research reports	4, 5, and 6
(7-8)	CPMK-7-8: [CP- 4.4] Describe the characteristics of effective sentences in scientific writing.	Effective sentence	The lecture was completed with broadcast material, Q&A, and assignments	<ul style="list-style-type: none"> • Make a lecture summary. • Doing Classwork 	The accuracy in explaining the form and characteristics of sentences is effective for a scientific work	4, 5, and 6
(9)	Midterm exam					
(10)	CPMK-10: [CP- 4.4] Explain the difference between direct and indirect citations in scientific papers and how to write a list of references.	Writing quotes and references (bibliography)	The lecture was completed with broadcast material, Q&A, and assignments	<ul style="list-style-type: none"> • Make a lecture summary. • Doing Classwork 	Accuracy in explaining how to distinguish direct and indirect quotations and writing a list of references (bibliography)	4, 5, and 6, as well other sources
(11)	CPMK-11: [CP-4.4,] Explain how to write an abstract of a scientific work.	Bibliography and Abstract Writing	The lecture was completed with broadcast material, Q&A, and assignments	<ul style="list-style-type: none"> • Make a lecture summary. • Doing Classwork 	The accuracy of mentioning the terms and things that must be present in an abstract.	4, 5, and 6, as well other sources

Sunday	Competence to be achieved	Study Materials	Learning Methods and Strategies	Assignments / assignments	Assessment Criteria / Indicators	Reference
(12)	CPMK-12: [CP-2.1, 2.2, 2.3, 3.3] Explain how to present pictures, schemes, graphs, and tables in a scientific paper.	Presentation of pictures, graphs, schemes and tables	The lecture was completed with broadcast material, Q&A, and assignments	<ul style="list-style-type: none"> • Make a lecture summary. • Doing Classwork 	Accuracy explains the terms and how to place images, graphs, schemes, and tables in a scientific paper.	4, 5, and 6, as well other sources
(13-15)	CPMK-13-15: [CP-4.4] Make a scientific work that meets scientific principles (Thesis Proposal, PKM Proposal, and the like, as well as seminars.	Making scientific papers and seminars	The lecture is equipped with broadcast material, Q&A, and Seminars	<ul style="list-style-type: none"> • Doing Tasks: Making a thesis proposal 	Accuracy and completeness in writing scientific papers and presentation materials, as well as clarity in seminar presentations.	4, 5, and 6, as well other sources
(16)	Final exams					

Note :1 credit = (50 'TM + 60' BT + 60 'BM) / Week

TM = Face to Face (Lecture)

BT = Structured Learning.

BM = Independent Study

PS = Simulation Practicum (160 minutes / week)

PL = Laboratory Practicum (160 minutes / week)

T = Theory (aspects of science)

P = Practice (aspects of work skills)

Correlation between CPMK and CPL and Assessment Methods

MSN1.62.4007	Assessment	Weight (%)	CPL-1			CPL-2				CPL-3				CPL-4				CPL-5			CPL-6		
			1	2	3	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	1	2	3
CPMK-1-2	UTS. 1	5															v				v	v	v
CPMK-3	UTS. 2	5															v				v	v	v
CPMK-4	UTS. 3	5															v				v	v	v
CPMK-5	UTS. 4	5															v				v	v	v
CPMK-6	UTS. 5	5															v				v	v	v
	UTS. 6	10															v				v	v	v
CPMK-7-8	UAS. 1	3															v				v	v	v
CPMK-10	UAS. 2	3															v				v	v	v
CPMK-11	UAS. 3	4															v				v	v	v
CPMK-12	UAS. 4	5															v				v	v	v
CPMK-13-15	Seminar	20															v				v	v	v
Duty		20																					
Presence		10																					
TOTAL		100																					

Assessment Component

Midterm exam	: 35%
Final exams	: 35%
Duty	: 20%
<u>Presence</u>	: 10%
Total	: 100%

Rating level description

	Excellent	Good	Satisfy	Fail
Description	Be able to describe with right and complete	Be able to describe with right but less complete	Be able to describe but unclear and less complete	Not capable describe
Formulations	Able to formulate correctly and completely	Able to formulate correctly but incomplete	Able to formulate but less clear and incomplete	Not able to formulate
Calculate	Able to calculate correctly and completely	Able to calculate correctly but not complete	Able to count but less clear and incomplete	Not able to count
Analysis	Able to analyze correctly and completely	Able to analyze correctly but incomplete	Able to analyze but less clear and incomplete	Not able to analyze

Scoring system

Score	Quality Value	Quality Score	Designation of Quality	Score	Quality Value	Quality Score	Designation of Quality
85 - 100	A	4.0	With compliments	55 - 59	C	2.0	Enough
80 - 84	A-	3.6	Very very good	50 - 54	C-	1.6	Not enough
75 - 79	B +	3.3	Very well	40 - 49	D	1.0	Less
70 - 74	B	3.0	Good	≤ 39	E	0.0	Failed
65 - 69	B-	2.6	Pretty good	-	T	-	Delayed
60 - 64	C +	2.3	More than enough				



MINISTRY OF EDUCATION AND CULTURE
STATE UNIVERSITY OF PADANG
MAJORING IN MECHANICAL ENGINEERING

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MIDDLE SEMESTER EXAM PROBLEM

Courses : Administration of Scientific Papers and Seminars
Code / SKS : SIP1.61.6202
Nature of the Exam : Closed Book
Lecturer : Dr. Rijal Abdullah, MT
Risma Apdeni, ST., MT.
Time : 100 minutes
Maximum value weight : point

No.	Question	Weight
1	Please explain well your understanding of the scientific method and its characteristics.	5
2	State the types of research in the framework of student final assignments and explain the research procedures.	5
3	State the definition and explain the purpose and function of scientific papers!	5
4	Explain the stages in writing a scientific paper!	5
5	Explain the benefits of an essay framework and / or research report outline!	5
6	Create an outline by selecting one of the following topics: a. Flood Disaster in Padang b. Panic Facing the Covid Outbreak 19. c. Drug Trap for the Young Generation.	10
	Total Score	35

UTS Answer Key

1. Scientific method (scientific method): the process of thinking to solve problems in a systematic, empirical, and controlled manner.
Characteristics of the Scientific Method:
 - a. Systematic
 - b. Logical
 - c. Empirical
 - d. Replicative

2. There are 2 forms of scientific work in the framework of student final assignments, namely research and design. Research for undergraduate (Thesis), for Masters (Thesis), and for S3 (Dissertation). While designs can be in the form of project design, business design, and others .
Procedure: Identify Problems, Formulate Hypotheses, Set Hypothesis Testing Procedures, and Conclude.
3. Written works present ideas, descriptions or problem solving systematically, objectively and honestly, using standard language, and are supported by facts, theories, and / or empirical evidence.
Destination:
 - a. To convey ideas,
 - b. To fulfill assignments in studies,
 - c. To discuss ideas in a meeting,
 - d. To take part in competitions such as PKM, etc., and
 - e. To disseminate knowledge / research results.
4. Preparation stage in writing scientific papers:
 - a. Selection of Topics / Problems
 - b. Topic Limitation & Title Determination
 - c. Creating a Framework of Work
 - d. Data collection
 - e. Organizing / Conceptualizing
 - f. Examination / Editing (editing)
 - g. Typing / Serving
5. Benefits of a draft outline:
 - a. Arrange essays scientifically and regularly
 - b. Avoiding the content of the writing deviates from the original goal
 - c. Ensuring that the writing is conceptual, comprehensive and directed
 - d. Facilitates the creation of a rhythm (climax-anticlimax)
 - e. Avoid overlapping topics / subtopics
 - f. Avoid discussing a topic / subtopic twice or more
 - g. Make it easy to find material / material written
 - h. Become a guideline in summarizing essays

Coral Framework....

Seminar Value:



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SEMESTER FINAL EXAM PROBLEMS

Courses : Administration of Scientific Papers and Seminars
Code / SKS : SIP1.61.6202
Nature of the Exam : Closed Book
Lecturer : Dr. Rijal Abdullah, MT
Risma Apdeni, ST., MT.
Time : 100 minutes
Maximum value weight : point

No.	Question	Weight
1	Explain the meaning of the effective sentence! State the terms of the effective sentence! (CPMK 7-8)	3
2	What do you understand about plagiarism? Give examples (CPMK 10)	3
3	Explain the function of the Bibliography and provide examples of correct writing! (CMK	4
4.	11) Explain with what is contained in the Abstract of a scientific paper (CPMK 11)	
4	Explain how to present pictures, schemes, graphs, and tables in a scientific paper (CPMK	5
	12)	
5	Seminar	20
Total Score		35



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COURSE TASKS

Courses : Administration of Scientific Papers and Seminars
Code / SKS : SIP1.61.6202
Nature of the Exam : Closed Book
Lecturer : Dr. Rijal Abdullah, MT
Risma Apdeni, ST., MT.
Time : 100 minutes
Maximum value weight : point

Group	Question	Max value
1	Writing Scientific Background	1
2	Creating a Framework for the Background of Scientific Work	1
4	Making a Simple Scientific Writing Framework (non-thesis)	2
5	Making Abstracts a Scientific Work	2
6	Discuss and present on wave energy utilization technology	2
7	Writing a Thesis Proposal for the seminar	12

Total Score 20

UAS Answer Key

1. An effective sentence is a sentence that has the ability to express the message, idea, or feelings of the author or speaker so that readers or listeners can understand the ideas expressed in the sentence as the ideas intended by the writer or speaker.

Requirements:

6 main requirements:

Unity of ideas → Clear Subject, predicate, object, and description

Parallel → Alignment, either passive or active

Affirmation / emphasis of words → changing positions, using pressure particles (lah, kah, etc.), and repetition, or contradiction.

Savings of words → avoid excessive repetition of subjects, days, dates, words.

Logical language → da tone of taste of language

Variety → not mooton.

3 additional conditions:

Choice of words (diction) → right

Spelling → right

Punctuation (punctuation) → right

2. Plagiarism is plagiarism or recognition of other people's work by someone who makes the work as his creation.
3. Bibliography is written to:

Provide information that the statements in the essay are not the results of the writer's own thoughts, but the results of other people's thoughts.

Shows the author's appreciation of the work of others who are included in development and writing

Give the reader the opportunity to find and read the reference that is the source of the quote by himself if the reader wishes to delve further into the quoted statement.

Example:

DAFTAR PUSTAKA

(2002). "Islam, Agama Populer atau Elitis." *Kompas*. (6 September 2002). Hlm.4 (konsisten penggunaan APA)

Abdur Rahman As'ari. (2001). "Penggunaan Strategi Pemampatan dalam Pembelajaran Matematika." *Jurnal MIPA* (Nomor 1 tahun 30). Hlm. 1-14.

Bastiam. 2007. "Reformasi Demokrasi". www.padangekspres.co.id. (diakses 12 April 2013)

Beer, M., Einstant, R.A., & spector, B. (1990), *The Critical Path to Corporate Renewal*. Boston: Harvard Bussiness School Press

Cohen, J. (2000). *Statistical Power Analysis for the Behavioral Science*. rev.ed. New York: Academic Press.

Elmore, R.F. (ed). *Restructuring School: The Next Generation of Educational Reform*. San Francisco: Jossey-Bass.

Firman. (2001). "Daya Prediksi Nilai Rapor dan STTB terhadap Prestasi Belajar jalur PMDK FPTK UNP." *Tesis tidak diterbitkan*. PPs-UNP.

4. The writing of the picture, the picture number, and the name of the picture are placed under the picture.

Figure numbers are written using Arabic numerals (1,2, 3 not I, II, III), written in sequence regardless of which chapter the image is presented in (Figure 1, not Figure 1.1). Each image is presented on a non-separate page.

Each table must be presented on the same page, although it must modify the font size.

The words "Table", table number, and table name are placed on the table.

If the table is quoted from a source, the reference should be written down in the same way as running notes (author's name, year).

In the UNP guidelines, table titles are treated the same as writing titles. The first letter of each word (except for conjunctions) is capitalized.