



UNIVERSITAS UDAYANA

IMPLEMENTATION AND WRITING GUIDE JOB TRAINING

2020

DEPARTMENT of
MECHANICAL ENGINEERING
UDAYANA UNIVERSITY

FOREWORD

Thanks to God's Almighty grace, so that the Revision Team for the preparation of the Implementation Guidelines and Writing Job Training for the Mechanical Engineering Study Program can be completed properly and smoothly. The revision of the preparation of the Guidelines for Implementation and Writing of Job Training for the Mechanical Engineering Study Program adjusts based on changes to the new curriculum offered in semester VI.

In completing this task, he received a lot of help and guidance from various parties both morally and materially, and on this occasion, the compilers sincerely expressed their deepest gratitude to:

1. Prof. Ir. Ngakan Putu Gde Suardana, MT., PhD as Dean of the Faculty of Engineering Udayana.
2. Dr.Ir. I Wayan Bandem Adnyana, M.Erg. as the Head of the Department of Mechanical Engineering, Udayana University.
3. Fellow Lecturers and all those who have helped a lot in completing the Guidelines for the Implementation and Writing of this Job Training which the authors cannot mention one by one.

Finally, with all the limitations of the ability and experience that the author has in the preparation of this report, with an open heart, the authors expect suggestions and criticism for the sake of perfection.

Badung, Januari 2020

Revision Team:

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CHAPTER I INRODUCTION

Jop training, is one of the requirements in completing a level of education in higher education. The jop training is structured with the aim of demonstrating the ability and scientific thinking attitudes of students independently.

Jop training is one of the requirements for Mechanical Engineering students to obtain a Bachelor of Mechanical Engineering at the Department of Mechanical Engineering, Faculty of Engineering, Udayana University, equivalent to 2 credits. In addition, jop training is an activity that will be documented in a special reference group at the Department level.

1.1 Limitation

Jop training is an individual academic activity in the form of field practice, case studies or a combination that is arranged in the form and procedure according to what has been determined. The jop training contains activity reports as a contribution to the development of science / technology carried out by students under the guidance of their Supervisors.

1.2 Purpose

The purpose of preparing this jop training is to give students the ability to:

1. Living up to scientific principles so as to be able to think, behave and behave as a scientist.
2. Broaden and deepen knowledge in the field of science / field work material.
3. Communicate scientific ideas and findings in writing in the form of a report according to the provisions.

1.3 Benefits of jop training

Broaden and deepen knowledge in the field of science / material in college and can apply it to the industrial world and field work outside campus.

CHAPTER II

GUIDELINES FOR IMPLEMENTATION OF PRACTICE WORK

2.1 Academic Requirements Jop training

To apply for and take job training or program at KRS, students must meet academic requirements which include:

1. Submission of job training to companies can be done at the beginning of semester V or the end of semester IV by taking 80 credits and carried out by the company on the end of semester V holidays (done before the program in semester VI KRS). Attach a transcript of grades that have been issued by the Department.
2. Students who have received replies from the company are required to program the VI semester KRS.

2.2 Job Training Implementation Procedure

The procedure for implementing job training is in accordance with the flow chart (Figure 2.1), namely:

1. Meets the requirements of job training, point 2.1 above.
2. Taking Forms for Implementation of job training in Department Administration (Attachment: Form A-F)
3. Consultation on the selection of the job training location to the Coordinator and the coordinator has the authority to decide the location of the job training. The consultation process must attach:
 - a transcript that has been approved by the PA
 - Form A that has been filled in
4. Students submit an application letter to the Dean to request a survey letter to the job training location from the job training coordinator (Attachment: Form G).
5. Students ask for an application letter to the job training place through Dekanan FT. The Application Letter is sent by students to the job training (may apply for more than 1 place)
6. If the application for job training at that location is approved, then proceed to the job training coordinator for the distribution of job training Supervisory Lecturers by attaching a Reply Letter received from the job training location and filling in (Form: B). If not accepted then return to point no. 2 and so on. Students are required to contact the supervisor at the latest a week after the appointment of the supervisor.
7. Students submit a letter of application for a Supervisory Decree to the Secretary of the department by bringing the completed C-D form.
8. Students in implementing job training are required to make full attendance during the job training (attachment 5) and a list of assistance from the supervisor (attachment 6).

9. The implementation time of job training is semester V holidays, next semester holidays or except for the remaining job training courses, for 2 months.
10. Preparation of reports follows the Writing Guidelines (Chapter III) and Writing Format (Chapter IV), reports are made in 3 copies and submitted no later than 1 month after the job training ends.
11. Supervising Lecturer gives a value according to the Format (Form F).
12. Students submit Application for Certificate of completion of job training (Form E) to the Coordinator by attaching the job training Evaluation sheet and Reading Room Certificate.
13. If the requirements and time cannot be fulfilled then the job training does not pass (there is no extension of the Job Training Decree) it is expected that they will take another one with the existing provisions.

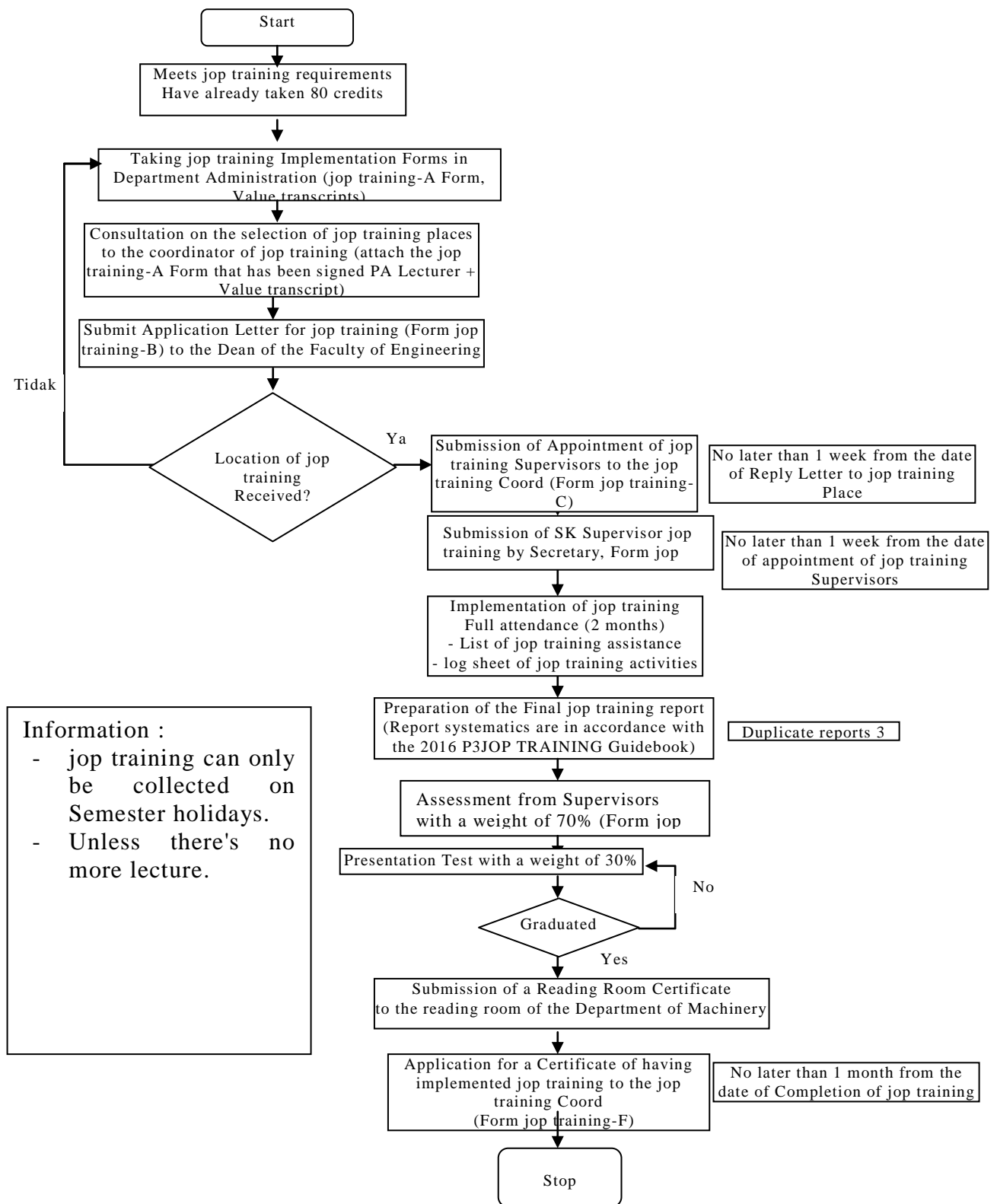
2.3 Practical Worjob traininglace Criteria

1. Companies or industries engaged in manufacturing have a clear organizational structure and have a business entity: CV, PT.
2. Companies or industries engaged in energy conversion have a clear organizational structure and have a business entity: CV or PT.
3. The company or industry combination 1 and 2 has a clear organizational structure and is a business entity: CV or PT.
4. Companies that have equipment / machinery related to Mechanical Engineering.
5. Research institutes (Lemlit), major testing centers: Puspitek, Batan, Lipi etc.

b. Criteria for job training topics

A job training topic must meet the following criteria:

1. Useful for science and technology: A job training topic that is useful and contributes to the field of science, in this case mechanical engineering, both from a theoretical and practical perspective.
2. Simple field case studies and solutions according to the steps of the Scientific Method.



Gambar 2.1 PSTM job training Flowchart

2.5 Scoring system

Appraisal of the results of the Job Training is carried out by the Advisor with the following conditions:

1. The weight of the assessment
 - a. Report Writing 10%
 - b. Engineering Application 25%
 - c. Mastery of partical Material 50%
 - d. Craft and Attitude 15%
2. The final score for jop training is determined by the supervisor with a weight of 70%, a presentation exam of 30% and a weight of the assessment following the academic guidelines.
3. The value that is declared passed is the value that meets the graduation requirements according to the academic guidelines.
4. The detailed assessment format can be seen in, Form: F

CHAPTER III WRITING GUIDE FOR PRACTICE WORK

This chapter contains an explanation and how to write job training in detail, starting from the title page to the appendix. The following is an example of writing parts of job training. Matters that are not regulated in this guideline can refer to other guidelines in a consistent manner.

3.1 The Beginning

3.1.1 Title Page

The Title page consists of an outer Title page and an inner Title page. Both have the same shape and content. The contents are the title of job training which contains the word "job training", the name of the student, NIM, educational institutions (Department of Mechanical Engineering, Faculty of Engineering and Udayana University) and the year the job training is finished. Between the Title and Name of the Student, it is filled with the Udayana University symbol Example: Title page can be seen in appendix 3.

3.1.2 Title

The title is the most interesting part of a written work. Therefore the title must describe the entire contents and activities of the job training that are carried out, written in a statement sentence, read the variables to be included in the report, written briefly (6-20 words), clear and specific. In the title, avoid using cliches (words that have a weak impact).

3.1.3 Endorsement page

This page contains a sentence which says that the job training has been permitted with the approval of the supervisor I the approval of the job training location. (Attachment 2)

3.1.4 Foreword

3.1.5 Table of contents

The table of contents is intended to provide a comprehensive description of the content of job training and to make it easier for readers to find certain information. The table of contents contains all the major points of job training as a whole from the title page to the appendix. The way of writing the title in the table of contents follows the way of writing the parts of the job training.

3.1.6 List of Figures and List of Tables

List of figures and list of tables are needed when many tables and figures are used in written work. All figures and tables are numbered and titled as indicated in the text. The way of writing a list of tables and a list of figures follows the way of writing a table of contents.

3.2 Main section

3.2.1 Chapter I Introduction

The introduction must be able to provide a brief, but clear, description of the direction of implementation of the job training that will be carried out. For this reason, the introduction must include the background, the formulation of the problem, the expected goals and benefits as well as the proposed hypothesis. Besides that, the introduction also contains the limitations of the problems that are being carried out. Further, each of the introductory sections is presented in the following.

3.2.1.1 Background

Background contains the reasons why a title was chosen (or for job training reasons why job training with an existing topic). The background must be able to indicate the existence of the problem being studied and must show data and facts as reasons. Data or facts are in accordance with real conditions in the field.

3.2.1.2 Questions of the problems

Clearly formulate the problems that you want to get from the company where the job training is in accordance with the duties of the supervisor and the duties of the field supervisor.

- Problems should be formulated in the form of an interrogative sentence.
- The formula should be concise and clear
- The formula should be the basis for making hypotheses
- The problem should form the basis for the report title.

1. Objectives and Benefits

The objective is the answer to the job training case study problems raised. The benefits of job training contains a brief and clear description of the contribution of this paper to the development of science, technology, and / or to companies, students and Mechanical Engineering.

2. Scope of problem

The problem boundary aims to limit the scope of the study so that it is focused (not too wide), thus allowing for a more in-depth study. In terms of the problem, the assumptions taken can be stated.

3.2.2 Chapter II Organization Structure and Company Management

In Chapter II describes the history, organizational structure and management of the Company. In company management can describe the minimum process of production / operation and company maintenance.

3.2.3 Chapter III Literature Review and Theory Basis

In the literature review and theoretical basis, all related theories are written, either from the research results or from the text book used in calculations or in discussions in order to make an analysis. As far as possible, the theory, data and information presented are taken from the original source. A library in the form of a website (web site) can be used as any other library.

3.2.4 Chapter IV Data and Discussion Results

This is the most important part of Job Training where all the results obtained are discussed and analyzed in accordance with existing theories. The results can be in the form of a summary of the results of calculations, measurements and analysis related to the theoretical basis and literature review. All discussion points must be directed to provide answers to the problems raised in the future.

3.2.5 Chapter V Conclusions and Suggestions

Conclusions are drawn from the Discussion Results and presented in straightforward sentences keeping in mind the problem and the purpose of writing.

The suggestions put forward relate to the application of the results, improvement and refinement of methods, expansion of the scope of the study etc.

3.3 End of Part

3.3.4 References

In the bibliography listed all libraries whose contents or part of the contents are quoted in the text. The bibliography in a job training will help readers who want to get more detailed information about the things cited in the text. Bibliography in the job training report is arranged

alphabetically based on the author's name with the following criteria (referring to the Harvard method):

1. For books, the author's name, year of publication, book title (in italics), volume, published number or edition (if any), name of publisher, and place of publisher are written in a row.
2. For journals and magazines, write the name of the author, the year published, the title of the article, the official abbreviation of the journal / magazine's name (in italics), volume, issue number, and the referring page number.
3. An article taken from the CD-ROM, at the end of the CD-ROM is written which shows the source of the article.
4. Articles obtained through Internet access, written: author's name, last update or copyright date, page title in quotation marks, website name in italics in brackets, Available: URL, Accessed: access date typed in brackets.
5. Literature is written consistently using the Harvard method (with minor modifications).
6. Examples of how to write libraries are listed in attachment 3.

3.3.5 Attachment

Attachments are used to place the SK job training, data or information that serves to complement the description that has been presented in the main section on job training. The data or information referred to can be in the form of: examples of calculations, drawings, plans and so on. Each attachment must be clearly titled. In the text, there must be a clear indication of the attachment in question.

CHAPTER IV

FORMAT OF WRITING A PRACTICAL WORK REPORT

4.1 Practical Work Structure

According to its form, Practical work is a scientific work of scientific reports recorded. The main part of this scientific work consists of introduction, content, and cover. Other things are complementary. The structure of the practice work report is as follows :

Practice Work Report
- Title Page
- Authentication Page
- Foreword
- Table of Contents
- Picture List
- Table
- List of Notations
- Chapter I Introduction
- Chapter II Organizational Structure and Production Management
- Chapter III Library Review and Basic Theory
- Chapter IV Results and Discussion
- Chapter V Conclusions and Suggestions)
- Library List
- Attachment

4.2 Typing Layout

Manuscript in the form of original or copy with the provisions of all parts of the practice work read clearly.

4.2.1 The paper typed 1.5 spaces on A4 (210 mm x 297 mm) type HVS 70 grams, font 12, Times New Roman style.

4.2.2 Cover :

Dark Blue Bufalo paper with formatting according to attachment 1.

4.2.3 Typing limits:

- Left side is 35 mm
- Right side is 30 mm
- Upper and lower limits are 30 mm each

4.2.4 Typing Distance, Chapters and Sub-Chapters

1. Typing distance between Chapter and Sub-chapter 3 space, Sub-chapter and sentence below 2 spaces.

2. Chapter titles are typed in the middle (center alignment) in uppercase and with a distance of 4 cm from the top edge without being underlined.
3. Sub-chapter headings are written starting from the left (left alignment), the first letter of each word is written in uppercase (capital letters), except for task words such as: that, from, and. With sub-sub numbers have sequences such as: 1.1, 1.2, and so on.
4. If there are still sub-headings in a lower level, written as in item (3) above, with the sub-chapter child number having a sequence such as: 1.1.1, 1.1.2, and so on.

4.2.5 Page Number

Page numbers in accordance with the following instructions:

- Page Title is not page numbered.
- The page sheet that contains; Authentication Page, English Abstract Prefaces, English Abstracts, Contentions, Tables of Contents, Tables, Picture Lists, Symbol Lists, and Attachment Lists are numbered "dummy" as follows i, ii, iii, etc.
- Page 1 starts in Chapter I until the last attachment page. page numbers are created continuously regardless of chapters and placed in the lower-right corner.

4.2.6 Alenia/paragraph

One alenia must carry one point of thought. Alenia just started with five empty taps. Avoid starting a new alenia at the base of the page, unless there is enough space for two rows.

4.2.7 Numbers and Units

Use of numbers or symbols at the beginning of a sentence to avoid. If necessary start with a number or symbol, then the number or symbol must be spelled. The units are written briefly without periods behind them such as: m², kg, Mpa etc.

4.2.8 Foreign Languages and Words

Try to use the word in Indonesian as long as possible. Whenever possible avoid using people's pronouns (like me, us, us, etc.). Latin name, a word derived from a foreign language or regional language is italicized or underlined at the time of first use in Practical work and subsequently typed the same as indonesian words

4.2.9 Table

A table consists of table numbers and table headings. The table is placed in three spaces below and above the text. The table title is placed left-aligned above the table, written with the letter size 10 with a space of 1.

Tables should not be cut off, unless they are long so it is impossible to type in a single page. In advanced tables, there are table numbers and the word "advanced" without headings.

The numbering of the table begins with the chapter number followed by the table number in the corresponding chapter. Like attachment 4.

4.2.10 Pictures

What is meant by a picture is a chart, graph, map or photo. An image must be listed complete with the image number and the title of the image is the size of the letter 10 with a space of 1.

If the image is sourced from a book or other writing, then this source to be listed also by writing the author's name and year in parentheses. Image numbering begins with the chapter number followed by the picture number in the corresponding chapter.

4.2.11 Wormula Writing

The formula is written on a separate line of text with a distance of one and a half spaces above and below it. Each formula is assigned a number according to the sequence number of the formula in each chapter that begins with the chapter number.

4.2.12 Bibliography Citations

To quote a few sentences from a bibliography can be done directly or indirectly by means of :

1. The author whose writing is referred to in the description is only mentioned the last name only, followed by the year.
2. If the author is two people then both last names are written by slipping the word and or & (according to the language of the script referred to) between the two names.
3. If the author is more than two people then only the last name of the first author is listed followed by et al./et.al. (according to the language of the script referred to).
4. If the author is not clear then the issuing agency or title or Anonymous is used.
5. If the quotation is sourced from official documents such as laws, government regulations, outlines of state direction, local

regulations, decrees and newspapers, then the source name is written directly in the text in parentheses with the year of issue.

CHAPTER V PRACTICAL WORK GUIDANCE

5.1 Guidance Qualifications

Qualifications of supervisors in accordance with the areas of expertise and applicable regulations.

5.2 Supervisory Duties

Practical Work Supervisors have obligations, among others:

- Assisting students in identifying practical work.
- Prepare time to guide students.
- Examine the chapters of the report and provide detailed notes and provide suggestions to improve the quality of the working content of the practice.
- Stipulate that a draft work practice is already eligible for a final report.
- Advise and help students to contact other lecturers for consultation on specific matters.

5.3 Student Obligations

Students who take practical work have obligations, among others:

- Preparing a practical work report that is the work of students themselves.
- Produce a practical work that is in accordance with the standards applicable in the Department and in the Faculty including demonstrating the ability to work independently in accordance with the selected topic.
- Give appreciation to direct assistance or materials obtained from other parties.
- Be aware that a supervisor has other guidance students or academic assignments that may delay the requested guidance.
- Give serious attention to the advice and guidance of the guide.
- Know the rules that apply in departments and faculties related to the preparation of practical work.

5.4 Advisory Rights

A guide has the right to:

- Decide on mentoring activities and advise students to look for other pimbingan if the student does not try seriously to complete their practical work.

- Entitled to use student KP results to be used by supervisors with student approval.

5.5 Student Rights

- Get an explanation from the supervisor in preparing practical work and solving the problems faced in the preparation of practical work.
- Entitled to a new mentor if students can provide strong reasons for the change, with the approval of the Department.
- Get the protection of the Department from all forms of exploitation by the supervisor or by other parties such as:
 - Avoiding his duties as a guide.
 - Using student student results without consent.
- If there is a problem between students and supervisors then the resolution becomes the authority of the Head of Department.

CHAPTER VI CLOSING CHAPTER

The Guidelines for The Preparation of Work practices are not intended as inviolable guidelines, but rather intended as a reference. Certain specifics, which are not set forth in these guidelines, may refer to other guidelines consistently as long as they do not deviate from the usual rules. Students are also required to read the improved Indonesian Spelling General Guidelines. With this guideline, it is expected that the implementation of the preparation of student practice work becomes more obedient to the principle and runs more smoothly. Further improvement is needed in line with the advancement of science and technology, especially in the field of Mechanical Engineering.

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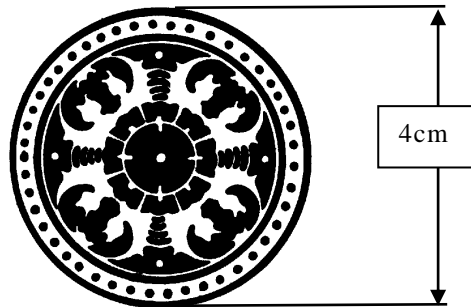
Lampiran 1. Cover laporan KP

KERJA PRAKTEK

Huruf Times New Roman,
14, Kapital Bold

**SISTEM PERAWATAN DAN MANAJEMEN
OPRASIONAL MESIN PADA PT. ANGKASA
PURA I TUBAN DENPASAR**

Huruf Times New Roman,
16, Kapital Bold



Oleh :
Nama Mahasiswa
NIM

Huruf Times New Roman,
14, Bold

JURUSAN TEKNIK MESIN
FAKULTAS TEKNIK
UNIVERSITAS UDAYANA

2016

Huruf Times New
Roman, 16, Kapital Bold

Lampiran 2. Contoh Format Lembar Pengesahan



**LEMBAR PENGESAHAN
KERJA PRAKTEK**

Kampus Teknik Denpasar

Telp. 0361 – 703321

Fax. 0361 – 703321

**SISTEM PERAWATAN DAN MANAJEMEN
OPRASIONAL MESIN PADA PT. ANGKASA
PURA I TUBAN DENPASAR**

Kerja praktek ini diajukan untuk memenuhi persyaratan menyelesaikan
Studi Strata Satu di Jurusan Teknik Mesin, Fakultas Teknik, Universitas
Udayana

Oleh :
Nama :
NIM :
Bidang Studi :

Menyetujui,

Pihak Perusahaan

Pembimbing

(.....)

(.....)
Nip.

Lampiran 3. Contoh Penulisan Daftar Pustaka

- ASTM, (1997), *Annual Book of ASTM Standards*, Section 15. Volume 15.03. Space Simulation; Aerospace and Aircraft; High Fibers and Composites.
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Lampiran 4. Contoh Cara Penulisan Tabel

Tabel 2.3
Skala Nonius Satu Dimensi.

Kecermatan	Besar u pada Skala Utama	Skala Nonius		
		Besar n pada skala nonius	Jumlah bagian	Panjang/besar keseluruhan
1/10 (0,01)mm	1 mm	0.9 mm	10	9 mm
1/20 (0,05)mm	1 mm	0,95 mm	20	19 mm
	2 mm	1,95 mm	20	39 mm
1/50 (0,02)mm	1 mm	0,98 mm	50	49 mm
	1 mm	0,98 mm	25	24,5 mm
1/12 ⁰ (5 ¹)	1 ⁰	11/12 ⁰	12	11 ⁰
	2 ⁰	23/12 ⁰	12	23 ⁰
1/60 ⁰ (1 ¹)	1 ⁰	59/60 ⁰	30	29,5 ⁰

Sumber : (Taufik Rochim, 1993)

Lampiran 5. Lembar Kehadiran Kerja praktek

LEMBAR KEHADIRAN KERJA PRAKTEK

Nama :
NIM :
Judul Kerja Prak. :

No	Tanggal	Kegiatan	TTD Pelaksana	TTD Pengawas

Lampiran 6. Lembar Assistensi Kerja praktek

**LEMBAR ASSISTENSI KERJA PRAKTEK
UNIVERSITAS UDAYANA FAKULTAS TEKNIK
JURUSAN TEKNIK MESIN**

Nama :
NIM :
Judul Kerja Prak. :

No	Tanggal	Kegiatan	Tanda tangan