

TABLE OF CONTENTS

	TITLE	PAGE
1	INTRODUCTION	2
2	OBJECTIVES	3
3	RULES & REGULATIONS	
	3.1 Company / Industry Selection	3
	3.2 Attending Industrial Training	4
	3.3 Failure in Industrial Training	5
4	INDUSTRIAL EXPECTATION	5
5	PROCESS FLOW OF INDUSTRIAL TRAINING	6
6	ASSESSMENTS OF INDUSTRIAL TRAINING	7
7	INDUSTRIAL TRAINING REPORT WRITING GUIDELINE	8
8	RECOMMENDED TEXTBOOKS & REFERENCES	11
9	REPORTING & EVALUATION FORMS	15
10	STUDENT LOGBOOK	21

1.0 INTRODUCTION

Industrial training refers to work experiences that are relevant to professional development prior to graduation. One of the requirements for the award of degree of *Bachelor of Engineering (Hons) Mechanical*, by the *Faculty of Mechanical Engineering, Universiti Teknologi MARA (UiTM)* is that students must complete at least 8 weeks of Industrial Training.

Students should note that Industrial Training is an essential component in the development of the practical and professional skills required of an Engineer and an aid to prospective employment. Many employers regard this period as a chance to vet new employees for future employment.

All students should make considerable effort and give sufficient thought into obtaining the most relevant and effective Industrial Training. Whilst difficult, it is desirable to obtain experience in a wide range of activities, such as e.g. design office, laboratory and on-site situations. It should also be noted that developing an awareness of general workplace behaviour and interpersonal skills are important objectives of the Industrial Training experience.

Normally students shall undergo Industrial Training during semester six and students shall obtain places for Industrial Training in any appropriate company of their own choices. The Faculty's *Coordinator of Industrial Training (CIT)* will assist eligible students on matter regarding the application process as well as responsible on the conduct of the Industrial Training. Students are advised to contact the CIT's office for any inquiry and regularly check latest information and updates on Industrial Training posted on the *Industrial Training Board* at the Faculty.

During the Industrial Training period, students are required to always observe the rule and regulation while attending the training and to record daily activities in the provided logbooks. At the end of the industrial training, each student is required to submit a full report, which contains detailed job description carried out by them. Faculty's staff will also monitor the students during the training sessions to assess the suitability of the training programme.

Assessment for the industrial training will be based on daily logbook, industrial training report, industrial supervisors and evaluating lecturer evaluations.

2.0 OBJECTIVES

Industrial training is one of the requirements for the award of degree of *Bachelor of Engineering (Hons) Mechanical*, known as *EM220*, by the *Faculty of Mechanical Engineering, Universiti Teknologi MARA (UiTM)*. The objectives of the programme are:

1. To expose students to actual working culture and industrial practice
2. To allow students to extend their theoretical knowledge into practice
3. To motivate students to practice the right working attitudes and professionalism to increase their employability potential.
4. To facilitate students to potential employers.

The three vital experiences to be provided by any Industrial Training centre shall include but not limited to:

1. Basic skills of technical staff
2. Application skills of engineers
3. Management skills

3.0 RULES AND REGULATIONS

3.1 Company/ Industry Selection

All students should make considerable effort and give sufficient thought into obtaining the most relevant and effective Industrial Training in order to achieve the objective of the industrial Training. The selection for place/company/organisation for Industrial Training shall meet the following criteria;

- a) The organisation and the training programme/project that offers are acceptable by the Faculty.

- b) The organisation is able to provide supervision and conduct assessment on the student during the training period according to the Faculty evaluation system.
- c) The duration of the industrial training meets the course requirement.
- d) The organisation indicates its preference to have the particular student for attachment.
- e) The student is not associated with the company and has no immediate family members, close relatives or friends either working in the organisation or issuer director's) or substantial shareholder's) of the organisation which may give rise to conflicts of interest. Failure to abide these requirements will render the industrial training invalid.

3.2 Attending Industrial Training

- a) Student attending industrial training is considered as a full-time UiTM student thus must abide by the University rules and regulations. Beside, the student must obey the regulation that has been enforced by the respective company.
- b) Student must give full attention and behave professionally as a university student during the training period.
- c) Student must adhere to the supervisor instruction regarding to any work related assignment.
- d) Student must attend the training on time according to usual office hours of the company. In case of emergency, the student must inform the supervisor and the coordinator of industrial training as soon as possible with a valid document.
- e) Student is not allowed to misuse company's properties.
- f) Student who receives allowance from the company must inform the coordinator industrial training.
- g) Student who behaves unconditionally and against the company rules and regulation can be summoned to attend a trial in the university court for further action.
- h) Student is expected to keep the secrecy of the company while and after attending the industrial training.

- i) Student is not allowed to take any leave during industrial training period. Occasionally, in case of emergency or sickness, a valid Medical Certificate (MC) or a valid leave's approval from the industrial supervisor must be submitted to the supervisor and the Faculty

3.3 Failure in Industrial Training

Students may fail their industrial training under any of the following condition;

- a) poor evaluation and comments from industrial supervisor and visiting lecturer.
- b) do not follow Industrial Training procedure
- c) late or fail to submit final report to the visiting lecturer
- d) absence to industrial training without permission from the industry
- e) changed industrial training placement without permission from the faculty
- f) do not comply to industrial rule and regulations.
- g) any act or behavior that against the UiTM regulation.

4.0 INDUSTRIAL EXPECTATION

Organizations participating in this Industrial Training are encouraged to provide a structured attachment programme with emphasis on applications, management and hands-on experience to the students to:

- a) Apply knowledge learned
- b) Acquire practical skills in a real project-based assignment
- c) Strengthen working values
- d) Gain interpersonal skills by involving in a team-work activities
- e) Utilize safety practice

Host companies are solicited to provide necessary recommendations to improve the programme by filling the evaluation form.

5.0 PROCESS FLOW OF INDUSTRIAL TRAINING

Process	Activities	Time / Duration
Application	Briefing I (Industrial Training Application)	Early January
	Student Application to companies/ industries	Early January
	Application status	June
	Briefing II (Industrial Training Activities) - Log book distribution	Early July
Training	Start Industrial Training	Middle of July
	Submit Reporting Form	Week 1
	Visit by Faculty members	Week 4 – 8
	Finish Industrial Training	Week 8
Registration	Student Registration for Industrial Training (MEC698) – <i>for next semester</i>	Pre-Registration Period
Post-Training	Submit Log book, Industrial Training Report & Evaluation forms.	Early October
	Results of Industrial Training	January / February

6.0 ASSESSMENTS OF INDUSTRIAL TRAINING

This Industrial Training is graded and assessment for the industrial training will be based on evaluation of the logbooks and final reports, evaluations by industrial supervisor's and evaluating lecturer.

Contributions of each assessment are as follows;

a) Online Reporting Form (Google's form)

Students are required to submit an online *Reporting Form* to the faculty within a week after registration at the company/organization. The address link to the online reporting form will be informed by the coordinator. Student who failed to submit the reporting form will be considered as not undertaking the industrial training program.

b) Daily Logbook (20%)

The criteria for logbook evaluation are based on logbook maintenance, contents and verifications by industrial supervisor and evaluating lecturer which carry same weightage.

Students should be able to

- i. maintain clear, concise and relevant entries in logbook
- ii. analyze and interpret information in the workplace
- iii. demonstrate a good understanding of the job assigned
- iv. explain practical and technical knowledge
- v. provide evidence of written communication, memo, technical drawing etc.

c) Final Report (30%)

The assessments are based on several factors such as industrial environment, industrial experience, industrial project and recommendations. Student must follow the ***Industrial Training Report Writing Guideline*** provided by the Faculty.

d) Industrial Supervisor Evaluation (40%)

The main criteria are discipline, attitude, communication skills, work efficiency, quality of work, leadership, technical competency and creativity.

e) Evaluating lecturer Evaluation (10%)

Representative of the Faculty of Mechanical Engineering, namely evaluating lecturer, will visit the student to evaluate the company and student performance at least once per training session. The criteria are discipline, scope of work, work efficiency, communication skills, achievement and overall performance.

7.0 INDUSTRIAL TRAINING REPORT WRITING GUIDELINE

The industrial training report should demonstrate practical and engineering skills through theoretical knowledge and programme outcomes. Development of engineering experience, communication skills and leadership are part of the training expectations. In addition, students are trained to deal with professional engineering ethics in preparing technical report. Students should seek advice from their company to ensure that no confidential material is included in the report. The student should be able to present the report to prospective employers, as a complement to their degree.

A copy of report should be submitted to the faculty (through the respective visiting lecturer). Students are strongly encouraged to submit a copy of the report to the Industrial Supervisor and retain a personal copy for themselves.

The report shall follow the following formats;

a) Front Cover

The format for the front cover should be as shown in **Figure 1.0**.

b) General Report

The report has to be type-written on white 80 gram high quality A4 size papers. All pages should be set with the same margin. The left margin should be 4 cm (for binding purposes) and 2.5 cm for the top, right and bottom margins (see Figure 2.0). Font type 'Times New Roman' with font size 12 should be used with line spacing of 1.5. The text must be printed on one side only. Each page must be page numbered at the mid-bottom. The report has to be properly bound with 'staple and tape binding (black in colour)'.

c) Abstract / Preface

This section is limited to one (1) page only with one paragraph. It should consist of brief description of the following;

- i. Activity of the organization
- ii. Summary of the report

d) Table of Contents

This section should consist of:

- i. Titles
- ii. Sub-Titles
- iii. Page numbers

e) Introduction

Brief and concise description of the company/industry where the student is undertaking the industrial training. The main descriptions are (not more than 3 pages);

- i. History
- ii. Structural of main activity
- iv. Objective of practical training
- v. Scope of training/ schedule
- vi. Others deemed necessary

f) Industrial Environment

This section should be the discussions of the industrial environments during the training. The main items are;

- i. Adaptation and adjustment to the industry
- ii. Practice of occupational safety and health environment

g) Industrial Experience

This section should be the description of duties and tasks carried out during the training. It should comply with the training schedule.

h) Industrial Projects

In this section, the student must describe and discuss several selected tasks carried out. The adaptive items to considered are;

- i. Relation between the tasks to the mechanical engineering course
- ii. Integrating the theoretical knowledge with practical works

i) Summary

Student should provide an overall discussion and conclusion with regards to the industrial training undergone. Besides, students should present their views and recommendations to the training programme and/or to the company.

j) References

References should be made in the text to books, technical papers, and standard regulations/laws etc., used during the training period. A complete list of the references must be included.

k) Appendix

Additional information considered appropriate to support the main text such as;

- i. Technical and/or project report during the training
- ii. Technical drawing etc.

Student may also attach a copy of a testimonial or confirmation letter obtained from the company upon finishing the practical training.

8.0 RECOMMENDED TEXTBOOK & REFERENCES

1. Leo Finkelstein, Jr., *Pocket Book of Technical Writing for Engineers and Scientists*, Third Edition, McGraw Hill, 2008 (ISBN: 978-0071259255)
2. Howard F. Gospel, *Industrial Training and Technological Innovation: A Comparative and Historical Study*, Vol. 4, Taylor & Francis, 2010 (ISBN: 978-0415043403)
3. Howard K. Morgan, *Industrial Training and Testing*, BiblioBazaar, 2011 (ISBN: 978-1406713954)
4. Lokesh Choudhary, *Industrial Training and Education*, Mittal Publication, 2007 (ISBN: 978-8183242363)
5. Diana Reep, *Technical Writing: Principles, Strategies and Readings*, Pearson Education Canada, 2010 (ISBN: 978-0205721504)



INDUSTRIAL TRAINING REPORT

(format: Times New Roman, Bold, 18)

X

<COMPANY NAME>
<COMPANY ADDRESS>
(format: Times New Roman, Bold, 16)

X

<STUDENT NAME>
<STUDENT ID>
(format: Times New Roman, 14)

Y

Faculty of Mechanical Engineering
 UNIVERSITI TEKNOLOGI MARA
(format: Times New Roman, 12)

Y

<MONTH / YEAR OF COMPLETION>
(format: Times New Roman, 12)

Figure 1.0

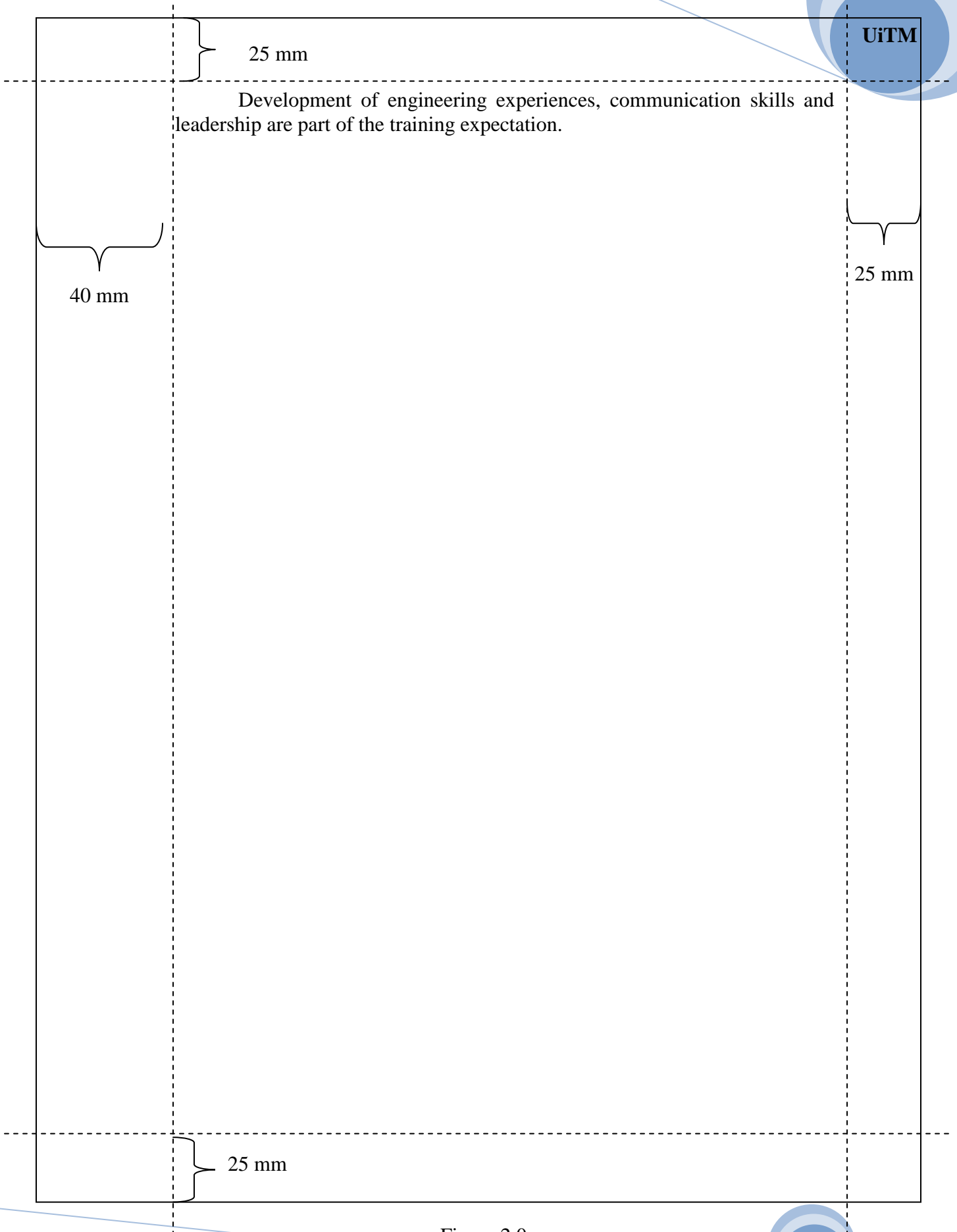


Figure 2.0