

Industrial Training

Proposal and Final Report Guidebook

October 2024



School of Computing, College of Arts and Sciences
Universiti Utara Malaysia

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Introduction

Industrial training is compulsory for all students at the School of Computing, College of Arts and Sciences (CAS) to fulfil the requirement for a Bachelor of Science with Honours (Information Technology) (BSc. Hons. (IT)) and a Bachelor of Computer Science (B.Comp.Sc. (Hons.)).

The purposes of industrial training are to:

- Expose students to real working environments.
- Enhance students' knowledge through exposure to industrial or organisational operations.
- Provide opportunities for students to perform real tasks in a more challenging environment.

During industrial training, students will be assessed on their communication competence while applying theoretical and practical knowledge.

Students are eligible for industrial training after accumulating at least 110 credit hours (sixth semester). They must adhere to all Universiti Utara Malaysia (UUM) industrial training programme regulations. The industrial training duration is 24 weeks (six months) at the designated organisations.

The industrial training programme connects the School of Computing (SOC) and organisations/industries. The programme outcomes are expected to enhance students' knowledge and assist organisations in managing IT resources. Additionally, it provides valuable feedback to SOC, helping to identify industry requirements and address students' weaknesses to strengthen the curriculum further. This approach enables SOC to produce more capable graduates who meet workforce demands in specific areas.

1.1 Forms

Students require TWO (2) forms:

Ref. No	Colour Code	Form
PRAK01	Green	Organisation Evaluation Form
PRAK02	Yellow	UUM Supervisor Evaluation Form

Note:

- a) Please ensure all information is written completely and clearly on the front page of the form.
- b) PRAK01 form must be submitted to the Organisation Supervisor. Then, the Organisation Supervisor must email the completed PRAK01 form to the respective UUM Supervisor.
- c) PRAK02 must be handed to the Visiting Lecturer during the face-to-face industrial training visit (if required).

1.2 Industrial Training Information

The School of Computing and the Centre for University-Industry Collaboration (CUIC) websites provide information on industrial training.

1.3 Industrial Training Regulation

During industrial training, students are subject to UUM regulations. The following are the main things that need to be aware of:

a) Confirmation of Industrial Training

Students must confirm their attendance at the organisation by returning their report duty form through the student portal (*please refer to the Industrial Training Unit for further information*). Students must also inform their supervisors regarding the status mentioned above.

b) Postponement of Industrial Training

Postponing industrial training is not allowed except for students with serious health issues. Please refer to the Industrial Training Unit for further information.

c) Report Preparation

In preparing the report, students are subject to the Act and Regulations of Academic Treachery from paragraph 12 UUM Act (Examination) 1988. Academic treachery

includes any acts of breaking examination rules and plagiarising project papers, academic practice, or any assignments and courses. If found guilty, the Student Discipline Body can execute one or more of the following punishments:

- Warning.
- Fine not more than RM 200.00.
- Suspension from any or all University's facilities in a certain decided period of time.
- Exclusion from any parts of the University in a certain decided period of time.
- Expulsion from University.

d) Incomplete Grade

Students can apply for an Incomplete Grade if they have not completed specific components, such as the final report. This application must be applied to the Industrial Training Unit, UUM. Please refer to the Industrial Training Unit for further information.

e) Disciplines during Industrial Training

Students terminated from industrial training due to disciplinary issues confirmed by the supervisors will be given an F grade. Please refer to the Industrial Training Unit for more information.

1.4 Supervision and Visitation to Organisation

Industrial training supervision aims to ensure the students are given proper tasks based on their industrial training project scope. The supervision is conducted by:

- 1) UUM Supervisor (SOC)
- 2) Organisation Supervisor
- 3) Visiting Lecturer (SOC)

UUM and Organisation Supervisors supervise and monitor students' tasks from registering until the industrial training ends. The supervisors will consult students from the stage of writing the proposal to the stage of reviewing the final report. Meanwhile, the Visiting Lecturers connect UUM and organisations to ensure good relationships and future cooperation. A Visiting Lecturer will assess the project presentation at the organisation or via an online platform, depending on the semester's requirements indicated by the Industrial Training Unit. For the students not selected for the visiting session, their project will be assessed by the UUM Supervisor, replacing the Visiting Lecturer.

The following is the list of actions that students must take (students must inform the supervisor regarding actions that must be taken).

Actions

Student

1. **Provision of Forms and Guidelines:** Students must provide the Organisation Supervisor with the PRAK01 form and related industrial training guidelines during report duty.
2. **Submission of Industrial Training Project Proposal:** Students must submit their industrial training project proposal to their supervisors within the first two weeks of the industrial training period.
3. **Presentation of Industrial Training Project:** Students must present their industrial training project to the Visiting Lecturer during the scheduled visit.
4. **Provision of PRAK02 Form:** Students should provide the PRAK02 form to the UUM Supervisor and the Visiting Lecturer for evaluation.
5. **Submission of Logbook and Final Report:** Students must submit the approved logbook and final report to their UUM Supervisor upon completion of the industrial training.
6. **Supervisor Evaluation Form (Reminder):** Students must remind their Organisation Supervisor to complete and submit the Organisation Evaluation Form (PRAK01) to the UUM Supervisor.
7. **Submission of Attendance Form:** Students must submit the attendance form to UUM Supervisor.

At the end of the industrial training session, students must submit the Logbook, Final Report, and Attendance Form to the UUM Supervisor. The proposal should have been submitted earlier at the start of the industrial training session.

UUM Supervisor (SOC)

1. **Supervision Responsibility:** The UUM Supervisor is responsible for overseeing the students throughout the entire duration of the industrial training.
2. **Liaison Role:** The UUM Supervisor is the primary liaison between the School of Computing (SOC) and the Organisation Supervisor. The UUM Supervisor must establish contact with the Organisation Supervisor within the first two weeks of the industrial training period.
3. **Feedback on Project Proposal:** The UUM Supervisor must provide feedback on the student's industrial training project proposal within two weeks of receipt.
4. **Monitoring Work Performance:** The UUM Supervisor should monitor and assess the student's work performance throughout the industrial training.
5. **Project Progress Monitoring:** The UUM Supervisor is responsible for tracking the progress of the student's projects.
6. **Evaluation of Final Report:** The UUM Supervisor must evaluate the students' final report.

7. **Performance Evaluation:** UUM Supervisor is required to evaluate the student's performance using the PRAK02 form.

**Visiting
Lecturer
(SOC)**

1. **Supervision Period:** The supervision period shall refer to the appointment letter issued to the Visiting Lecturer by the Industrial Training Unit, which can be accessed through the respective portal.
2. **Pre-Visit Communication:** The Visiting Lecturer is advised to contact the assigned student by telephone or email before the scheduled visit. This communication ensures that the student and the respective organisation are prepared to receive the visitation for an in-person or online visit.
3. **Document Preparation:** Ensure that all relevant documents and forms, including the PRAK02 form, are complete and prepared for use during the visit.
4. **PRAK02 Form Collection:** The Visiting Lecturer should collect the UUM Supervisor Evaluation Form upon arrival at the industrial training location during a face-to-face visit. The Visiting Lecturer must download the UUM Supervisor Evaluation Form from the SOC website for an online visit. The Visiting Lecturer should contact the Industrial Training Committee if assistance is needed.
5. **Engagement with Organisation Supervisor:** During the visit, the Visiting Lecturer should meet with the Organisation Supervisor to discuss industrial training requirements, including skills development, current industry-standard tools and technologies, and the student's problem-solving and critical thinking abilities.
6. **Professional Conduct:** Arrive on time, dress professionally, and adhere to the organisation's protocols and culture
7. **Gather Feedback:** Obtain feedback on the student's work ethics, skills application, teamwork, and overall integration into the organisation.
8. **Assess Learning Outcomes:** Have a one-on-one session with the student to discuss what they have learned, their challenges, and how they apply their academic knowledge in the real world.
9. **Evaluate Work Environment:** Observe the student's work environment to ensure it is conducive to learning and that the tasks assigned are relevant to their field of study.
10. **Reporting Student Issues:** Any issues raised by students during the visit must be documented and reported to the Industrial Training Unit through a formal written report. This process is essential for ensuring the issues are addressed and resolved in collaboration with the relevant parties.
11. **Documentation of Supervision:** The Visiting Lecturer must document each session as evidence.

Organisation
Supervisor

1. **Provide Learning Guidelines:** Ensure students have clear and comprehensive learning guidelines to facilitate their training and development within the organisation.
2. **Receive Students According to Organisational Training Plans:** Accept students based on the organisation's planned training programs and the student's qualifications, ensuring alignment with the organisation's objectives.
3. **Arrange Appropriate Departmental Placement:** Assign students to the appropriate department, unit, or section that aligns with their academic background and the organisation's needs.
4. **Plan Training Scope:** Develop a training plan directly relevant to the student's academic program, ensuring the scope of training enhances their educational experience.
5. **Monitor Progress and Provide Feedback:** Regularly monitor student progress, offering constructive guidance and feedback to support their professional development.
6. **Submit Initial Feedback to UUM:** Provide feedback on the student's performance to the UUM Supervisor within the first two weeks of the industrial training period.
7. **Review and Approve Industrial Training Project Proposals:** Discuss and endorse the student's industrial training project proposal before submitting it to the UUM Supervisor for approval.
8. **Report Disciplinary Issues:** Immediately notify the UUM Supervisor or the Industrial Training Unit of any disciplinary issues or instances of student misconduct.
9. **Review and Endorse Logbook:** For a physical or a softcopy logbook, ensure the student's logbook is reviewed and signed at least once a month to document their tasks. Supervisors should regularly review entries for an online logbook, which must be endorsed by the end of the industrial training to confirm the documented tasks.
10. **Evaluate Student Performance:** Continuously track the student's skills development, provide feedback, and assess their performance throughout the industrial training program.

1.5 Evaluation Components

Industrial training evaluation is divided into **TWO (2)** components:

- 1) Organisation Supervisor Evaluation Form (PRAK01) **40%**
 - Individual assessment
 - Project assessment

- 2) UUM Supervisor Evaluation Form (PRAK02) **60%**
 - Project presentation

- Individual assessment
- Project assessment

Students not fulfilling the above evaluation components will be considered **FAIL** in industrial training.

Industrial training activities phases are as follows:

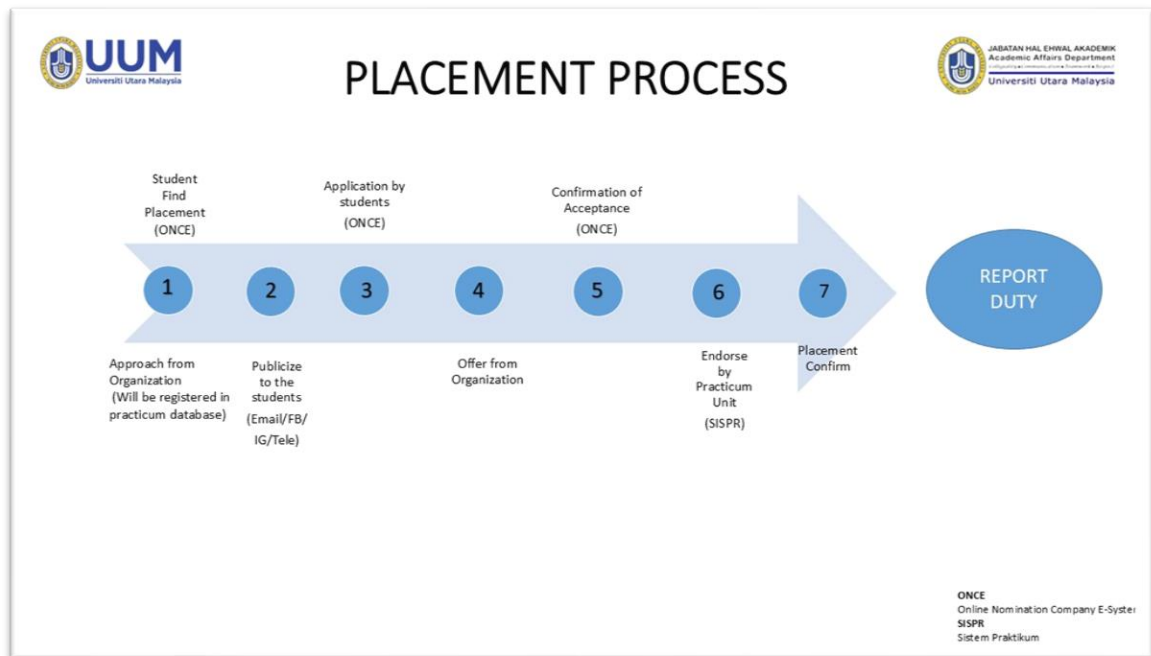


Figure 1: Placement Process

Table 1: Industrial Training Phase

Phase	Item	Action	Notes
Before Industrial Training	1) Students find placement at ONCE (Figure 1)	Student	
	2) Students attend an Industrial Training workshop	Student	
	3) Students are assigned to the UUM Supervisor		Refer to the portal/ announcement
	4) Students meet the assigned UUM Supervisor	Student	
During Industrial Training	5) Students register at the organisations	Student	Day 1
	6) Students submit confirmation of registration form to the student portal	Student	Week 1

	7) Students describe the organisation environment to the UUM Supervisor	Student	Week 1
	8) Students discuss the project with Organisation Supervisor	Student	Week 1
	9) Students submit a proposal to the UUM Supervisor	Student	Week 2
	10) Students start the project	Student	
	11) Students report the project progress	Student	
	12) Visiting Lecturer visits the organisation	Visiting Lecturer	
	13) Students present the project to the Visiting Lecturer	Student	
	14) Students submit a draft report	Student	A month before industrial training ends
After Industrial Training	15) Students submit logbook and attendance form to the UUM Supervisor	Student	One week after industrial training ends
	16) The Organisation Supervisor submit the PRAK01 form to the UUM Supervisor	Organisation Supervisor	Immediately after industrial training end (confidential)
	17) The UUM Supervisor review the draft report and give feedback to students	UUM Supervisor	
	18) Students do corrections and submit the final report to the UUM Supervisor	Student	Two weeks after industrial training end
	19) UUM Supervisor complete the PRAK02 form and key in the final industrial training marks	UUM Supervisor	

Project Scope

Students are generally permitted to undertake projects in any areas related to Information Technology (IT) and Computer Science (CS). However, the project has to be proposed by the students and approved by the UUM Supervisor. UUM Supervisor can discuss the project with the Organisation Supervisor to determine the appropriate scope.

2.1 IT/CS Project

Below are the suggested projects that can be conducted during industrial training. However, projects are not limited to the list.

Table 2: Suggestion Projects

Project	Description
1 Application Development	
<ul style="list-style-type: none"> ■ Web-based 	<ul style="list-style-type: none"> ■ Develop web-based applications using server-side scripting (such as PHP or ASP), databases and HTML pages. ■ The application must be interactive and contain basic functions such as data entry, updating, generating reports, etc. ■ Example: e-commerce website, online student registration system, web-based staff management system, and web portal. ■ Static pages which contain only HTML files are not allowed.
<ul style="list-style-type: none"> ■ Web Services 	<ul style="list-style-type: none"> ■ Suitable for those who have deep knowledge of web application technology such as UDDI. ■ Example: Web service for the tourism industry, university information web service

■ Client-server	
■ <i>Mobile/wireless</i> application	
2 Information System Planning (ISP)	A study to propose an information system plan for the organisation/department. Plan a new system or upgrade the current system.
3 Bioinformatic application	
4 High-performance computing	Grid/cluster/parallel/distributed/real-time computing, simulation.
5 Information system & network security	Focus on computer security: Planning, analysis, design, implementation, policy, audit, etc.
6 Computer system configuration	
7 Prototype-based Project	
8 Experimental-based Project	
9 Theoretical Computer Science-based Project	
10 IR 4.0 relevant topics	Autonomous Robots, Big Data Analytics, Cloud Computing, Internet of Things (IoT), Additive Manufacturing (3D Printing), System Integration Cybersecurity, Augmented Reality, Simulation.
11 Other relevant project	With the approval of the UUM Supervisor

Proposal Preparation

Students should prepare a proposal explaining the project to be conducted at the organisation. The proposal must be submitted to the UUM Supervisor TWO (2) weeks after the students have registered with the organisation.

3.1 Proposal Writing Guidelines

The proposal must be clear, concise, neat and written in English. The maximum number of pages is ten, excluding attachments. The front page of the proposal is as in the Appendix. The student must discuss it with the supervisor to determine the appropriate project. Both supervisors must agree on the project scope. The proposal should be signed by the student and approved by the Organisation Supervisor (Refer to the Appendix). Please refer to Chapter 5 for the format of the proposal.

3.2 Proposal Content

The proposal should consist of the following items:

Item	Description
1. Front page	It contains the title of the project and details of the student and Organisation Supervisor (name, position, and contact details).
2. Table of Contents	Contains topic, sub-topic and page number.
3. List of Figures	List any illustrations or figures (if more than 5 illustrations or figures)
4. List of Tables	List any tables (if more than 5 tables)
5. Introduction	Explain goals, problem statement, objective, project scope, and significance precisely.
6. Project Planning	Discuss on:

- 7. Summary
 - 8. References
 - 9. Appendixes
- Methodology
 - Feasibility study (including tools, software, cost and Gantt chart)
- Prepare a summary of the proposed project
- Include all relevant references
- Include all attachments (if any)

Below is the main content of the proposal.

<p>1.0 Introduction</p> <p>1.1 Project background</p> <p>1.2 Problem statement</p> <p>1.3 Objective</p> <p>1.4 Scope</p> <p>1.5 Project significance</p> <p>2.0 Project Planning</p> <p>2.1 Methodology</p> <p>2.2 Feasibility study</p> <p style="padding-left: 20px;">2.2.1 Tools (examples: hardware, software, database, etc.)</p> <p style="padding-left: 20px;">2.2.2 Cost estimation</p> <p style="padding-left: 20px;">2.2.3 Gantt chart</p> <p>3.0 Summary</p> <p>References</p> <p>Appendixes</p>

Industrial Training Report Preparation

An industrial training report is a required component for a BSc. (Hons.) (IT) and B.Comp. Sc. (Hons.). The report must follow the defined specifications. The student must prepare the report based on their project and experience during Industrial Training. UUM Supervisor will evaluate the report. Students who fail to submit the report within the timeframe will be given an **F**. Students can apply for an Incomplete Grade to the Industrial Training Unit with an agreement from the UUM Supervisor. Please refer to the Industrial Training regulation for Incomplete Grade.

4.1 Report Writing Guidelines

The report should be written in English. The report should not exceed **50 printed pages**, excluding Appendixes.

4.2 Report Content

The Industrial Training report consists of three main parts which are:

- Section A: Introduction
- Section B: Body of the report
- Section C: References and Appendixes

All of these three main parts must be organised and given page numbers accordingly based on the following table:

Section	Order	Item	Page Numbering
A	1	Title Page	<i>No page number</i>
	2	Declaration	
	3	Acknowledgement	Using Roman small letters (starting with iii)
	4	Disclaimer	
	5	Executive Summary	
	6	Table of Contents	
	7	List of Figures	
	8	List of Tables	
	9	Abbreviation	
B	10	Body of Report <ul style="list-style-type: none"> • Chapter 1: Introduction • Chapter 2: Project Description • Chapter 3: Methodology • Chapter 4: Result and Discussion • Chapter 5: Conclusion 	Using numbers (starting with number 1)
	11	References	
C	12	Appendixes <ul style="list-style-type: none"> ▪ Appendix A ▪ Appendix B ▪ Appendix C: ... 	Appendix A: Overall Experiences (other tasks completed), Appendix B: Additional diagrams, charts, etc

4.2.1 Section A: Report Introduction

The report introduction consists of several components (or pages), including a title page, declaration, acknowledgement, disclaimer, executive summary/abstract, table of contents, list of tables, list of figures and abbreviation.

1) Title Page (refer to the Appendix)

This page consists of the following information:

- (i) Full project title (middle of the page)
- (ii) Place of Industrial Training (bottom of the page)

The title must explain the main project, and the length must be 10 – 15 words.

2) Declaration (refer to Appendix)

This page consists of the following items:

- (i) A short declaration statement and course code (on the top page)
- (ii) Student's name and matric number (in the middle of the page)

3) Acknowledgement Page

This page acknowledges all parties (individuals or institutions) who assist in the project implementation. The acknowledgement must be simple and concise.

4) Disclaimer (refer to Appendix)

This page contains a statement to claim the validity and copyright of the report contents. The student needs to write down the student's name and matric number.

5) Executive Summary/Abstract

The executive summary is the essence of the whole report and needs special attention as the main text. References should not be cited in the Executive Summary; **if necessary, use a footnote**. Avoid using any abbreviations or acronyms.

Executive Summary should **not exceed 300 words**. It must contain fact-specific issues, a brief project explanation, the main findings, the significant facts, and the conclusion. This summary should be typed in single spacing on only one page.

Example:

ABSTRACT
An online management system is a web-based application that could help organisations enhance their productivity, encourage customer participation, and enable an Online management system or electronic management, which can be defined as a process of managing data information and making communication through the Internet. The process could be implemented in technology categories like real-time, web-based, and mobile applications. Thus, the journal management system has great potential to be integrated with the web application. With the need for a faster publishing process and the complexity of the management process, an online management system for journals is proposed.

6) Table of Contents

The table of contents should follow the order, with relevant page numbers, all sections and subsections, topic and sub-topic, list of references, acronyms and other overall report functions; Appendixes and indices (if any).

Example:

TABLE OF CONTENT	
Title Page	i
Declaration	ii
Acknowledgement	iii
Disclaimer	iv
Executive Summary	v
List of Table	vii
List of Figure	vii
Abbreviation	ix
1.0 Introduction	1
1.1 Organization Background	1
2.0 Project Description	4
2.1 Project Introduction	4
2.2	

7) List of Tables

This list contains all table titles exactly like in the text. Information that needs to be included is table number, title and page number.

Example:

List of Table

Table Num.	Item	Page
Table 1.1	List of Computer	2
Table x.x

8) List of Figures

This list includes graphs, figures, maps and other illustrations. The title of the figures must follow the captions of the figures in the report. The information must have the figure number, title and page number.

Example:

List of Figure

Figure Num.	Item	Page
Figure 1.1	Organisation Chart	5
Figure x.x

4.2.2 Section B: Body of Report

The report content should consist of five main chapters: an introduction, a project description, a methodology, results and a discussion, and a conclusion. At the end of each chapter (except the chapter conclusion), a summary of the chapter should be provided to formulate ideas/body of the chapter. The following is the breakdown of the report:

Chapter 1: Introduction

- 1.1 Organisation Background
 - 1.1.1 Organisation History and Structure
 - 1.1.2 Vision/Mission
- 1.2 Organisation Activities
- 1.3 Summary

Chapter 2: Project Description

- 2.1 Project background
- 2.2 Problem Statement
- 2.3 Project Objective
- 2.4 Project Scope
- 2.5 Significance of Project
- 2.6 Weaknesses and Recommendations
- 2.7 Summary

Chapter 3: Methodology

- 3.1 Overall phases
- 3.2 Description of each phase
- 3.3 Summary

Chapter 4: Results and Discussions

- 4.1 Results
- 4.2 Discussions
- 4.3 Summary

Chapter 5: Conclusion

Appendix A

Other Assignments in the Organisation
List of Task
Industrial Training Problem
Industrial Training Effectiveness
Industrial Training Objectives Achievement
Learning Outcome during Industrial Training
Recommendation and Suggestion

Appendix B

Additional diagrams, charts, etc

1) Chapter 1: Introduction

The introduction should include two main things: the organisation's background and an overall observation of the entire organisation. Organisation background contains basic information such as a brief organisation history, management, objective, organisation mission and vision. Overall observation covers an overall aspect of organisation specialisation and roles. Discussion of related topics should not exceed two pages each respectively.

2) Chapter 2: Project Description

Chapter 2 covers a detailed explanation of the MAIN project. This chapter includes the project's introduction, methodology, weaknesses and recommendations. Problem statement of the chosen project, objective, project scope and significance must be explained in the introduction of the project. The chosen methodology must be suitable for the project scope. Each phase needs to be explained in detail, together with related deliverables.

Note:

Project design must include description of the technical specification in this chapter.

3) Chapter 3: Methodology

This chapter should explain how the project was conducted.

4) Chapter 4: Results and Discussions

This chapter should explain the results and discussion of the project.

5) Chapter 5: Conclusion

This chapter should explain the conclusion.

4.2.3 Section C: References and Appendixes

Section C provides a list of references and Appendixes. Both items are important to provide readers with a referral or obtain additional declarations.

1) References

References should follow the provided format and style. Please refer to Section D on reference style.

2) Appendixes

If any, Appendixes need to be attached after the references. Details of the attachment should be listed in the table of contents. The page number is needed in every Appendix. If there is more than one, use A, B, C, and D to number each Appendix. Every new Appendix must start with a new page. Some good examples of Appendixes are:

Appendix A should report activities of other projects (other than the main ones) throughout the industrial training. In the Appendix, relevant activities/projects should

be listed clearly. Students must also report any problem encountered throughout the industrial training.

Other Appendixes can cover the following:

- UML diagrams
- storyboard
- script
- user manual
- network design
- flow chart
- Gantt chart
- source code
- organisation chart, etc.

Format for Proposal and Report Writing

The proposal and final report must be prepared and typed clearly. The writing format for both the proposal and final report must be standardised based on the format given.

5.1 Font Type and Size

Use *Calibri*. Specifications include:

- (i) Font size 12 for the text, including the main topics. The main topics must be written in uppercase (capital letters) and should be bold.
- (ii) The font size for subtopics is also 12. Write the subtopics in title case and bold.

Example:

1.0 MAIN TOPIC

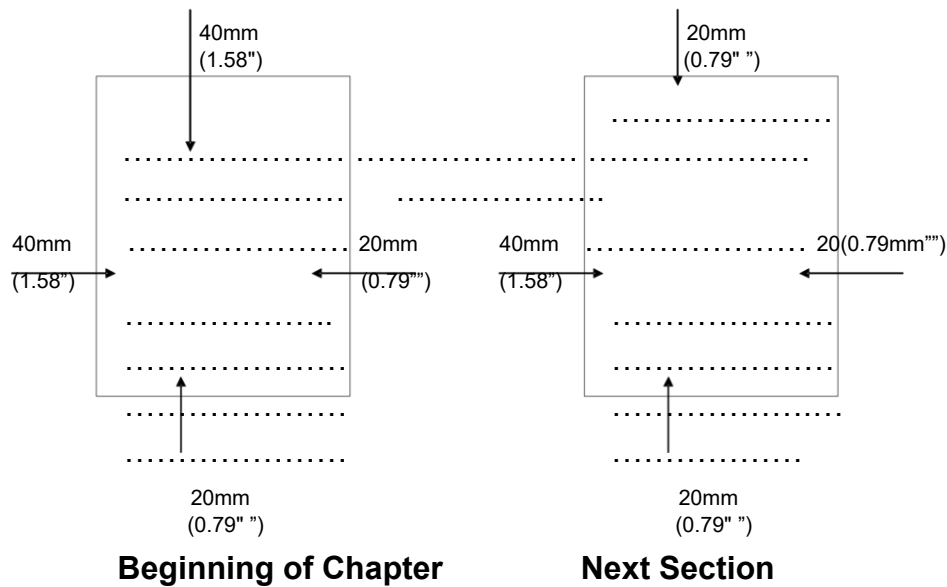
1.1 Subtopic

1.1.1 subtopic

- (iii) The font size for captions on tables and figures is 10.
- (iv) Use a word processor that can give you a standard typing format.
- (v) The usage of headers and footers is not allowed.

5.2 Margin

The margin on the left-hand side of the report is 40mm (1.58") and 20mm (0.79") on the right, top and bottom sides, except for the beginning of the chapter, where the top margin must be at least 40mm (1.58").



5.3 Heading and Subheading

Use a consistent numbering format (refer to the example below). The position of the subtopics must align with the main topics (no indentation is needed).

Example:

1.0 MAIN TOPIC	... Level 1
1.1 Subtopic for 1.0	... Level 2
1.1.1 Proportion of Subtopic 1.1	... Level 3
a) Proportion for 1.1.1	... Level 4
i) Proportion for a)	... Level 5

Note: Please refer to the Technical Report Writing textbook or any academic writing books.

5.4 Spacing

The proposal must be typed in single spacing, whereas the final report must be typed in 1.5 spacing.

The following item must be typed in single spacing in the final report:

- (i) Footnote
- (ii) Quotation that exceeds three lines
- (iii) References
- (iv) Table
- (v) Appendixes, e.g. questionnaires, letters, etc.

The main section (chapter) must begin on a new page.

5.5 Paging

- (i) Page numbers must be continuously counted. It should be without any brackets, hyphens or other decorations.
- (ii) Page numbers before the report's first chapter must be written using small Roman numbers. No numbering is needed for the Title Page.
- (iii) The page numbering starts from the first page of the report's first chapter.

5.6 Table and Figure

Tables should be labelled in sequence according to the chapter/section in the report and written in the title case. The caption for a table is written at the top of the table. The format is as follows:

Table <Chap>.<Table No>: <Name/Table Topic>

Example :

Table 5.1: Tabulation of Computer Users in Malaysia's Northern States

	Perlis	Kedah	Penang
1995	1000	1200	2971
1996	1500	1800	3654
1997	1572	1890	3985
1998	1602	1906	4576
1999	1680	1950	4867
2000	1750	2103	6514
2001	1890	2500	7514
2002	1990	2530	8245
2003	2504	2641	9987

Based on the above example, the caption for the table begins with "**Table 5.1**", which shows that the table is the **first** table in Chapter **5**.

The same goes for figures, except that the caption for a figure is written at the bottom of the figure. The format is as follows:

Figure <Chap>.<Figure No>: <Name/Figure Topic>

Example :

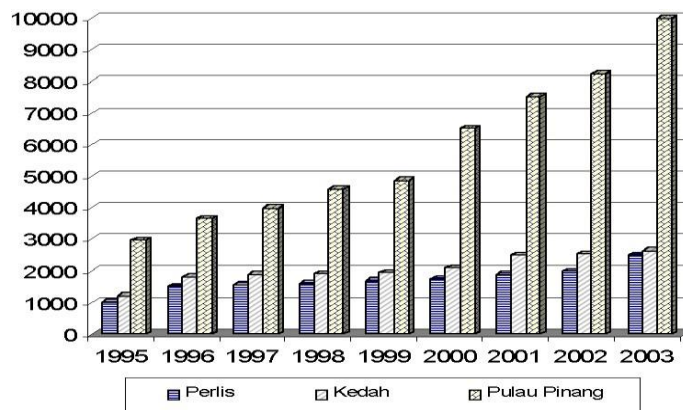


Figure 1.2: Availability of Computers in Malaysia's Northern States

Based on the above example, the caption for the figure begins with "**Figure 1.2**", which shows that the figure is the **second** figure in Chapter **1**.

Reference Preparation

All references must be relevant, cited and placed after **the report's final chapter**. Each reference must be consistent and follow the writing practice procedures below:

- Each entry must start at the left margin with the second line indented four spaces and in single spacing (refer to example).
- If there are more than two works by one author, the repetition of a name can be avoided by replacing it with a continuous line throughout 8 columns (space) starting at the left margin.
- If the author is unknown, the entries are arranged alphabetically (excluding "The", "A", and others).

6.1 Citation in the Text

Entries in the reference should follow either IEEE format or APA 7th edition format. Please refer to the Appendixes.

6.2 Creating References

A reference list must be provided at the end of the report based on the order of citation used in the text, not in alphabetical order. **One reference number is for one reference.**

To prepare the reference list, please refer to the Appendixes.

Proposal and Report Submission Procedures

7.1 Proposal Submission

A completed and approved Proposal endorsed by the Organisation Supervisor should be submitted to the UUM Supervisor. The final date to submit the proposal is on the 14th day, **TWO (2) weeks** after the Industrial Training begins.

7.2 Industrial Training Report Submission

Students must submit a report draft within one month before the industrial training ends for review. The report should be complete and neat. Refer to the Appendixes for the front page of the report. The UUM Supervisor will provide feedback before returning the report to the student.

Students must correct the report based on the UUM Supervisor's feedback. Students must resubmit the report to the UUM Supervisor within **TWO weeks** after the industrial training ends.



Logbook

Logbook Requirements

During industrial training, students must maintain a daily record of their activities at the host organisation. Students must update the logbook consistently daily. The logbook must be reviewed and endorsed by the Organisation Supervisor.

Logbook Format

Before starting the industrial training, students must consult their UUM Supervisor to decide on the logbook format. Options include i) designing an online logbook using platforms such as Wix.com, Blogger.com, WordPress, or Google Sites or ii) utilising the logbook template provided by the Industrial Training Unit. The logbook template can be accessed via the Centre for University-Industry Collaboration (CUIC) website.

The logbook should comprehensively document the following:

- i. the duration of the industrial training.
- ii. student information, including name, student ID, and contact details.
- iii. organisation information, including name, address, and supervisor contact details.
- iv. each task's date, day, and time are clearly stated and in chronological order.
- v. description of the daily tasks.

Important Note on the Online Logbook:

Students must obtain permission from the Organisation Supervisor before including confidential information in the online logbook. The online logbook should be regularly updated and accessible to the Organisation Supervisor and the UUM Supervisor for weekly review and approval.



References

Akta dan Peraturan. (1993). Jabatan Hal-Ehwal Akademik, Universiti Utara Malaysia.

APA Style. (n.d.). Reference Examples. Retrieved September 15, 2024, from <https://apastyle.apa.org/style-grammar-guidelines/references/examples>

Centre For University-Industry Collaboration (2024). Practicum Guidelines For Employer. Retrieved September 15, 2024, from <http://cuic.uum.edu.my/index.php/muat-turun>

IEEE Author Center. (n.d.). IEEE Editorial Style Manual for Authors. Retrieved September 15, 2024, from <http://journals.ieeeauthorcenter.ieee.org/wp-content/uploads/sites/7/IEEE-Editorial-Style-Manual-for-Authors.pdf>

Perpustakaan Sultanah Bahiyah. (n.d.). APA Citation Style, 7th edition. Retrieved September 15, 2024, from <https://uum-my.libguides.com/c.php?g=933116>

Appendix A: Proposal (Front Page)



**Pusat Pengajian
Pengkomputeran**
School of Computing
Universiti Utara Malaysia

COLLEGE OF ARTS AND SCIENCES
UNIVERSITI UTARA MALAYSIA

<<CODE/COURSE>>
<<SEMESTER>>

PROPOSAL

Title: _____

STUDENT

Matric No.: _____
Name: _____
Email: _____
Contact No.: _____

ORGANISATION

Name: _____
Address: _____

SUPERVISOR (ORGANISATION)

Name: _____
Position: _____
Email: _____
Contact No.: _____

Appendix B: Proposal (Last Page)

Prepared by:

Student's Signature: _____ Date: _____

{ _____ }

Endorsed by:

Organisation's Supervisor Signature: _____ Date: _____

{ _____ }

Company's Stamp:

Appendix C: Title Page

<<INDUSTRIAL TRAINING PROJECT TITLE>>

<<INDUSTRIAL TRAINING ORGANISATION NAME>>
<<TOWN STATE>>

Appendix D: Declaration

This report is prepared to fulfil the requirement of
<<CODE/COURSE>>

By:
<<STUDENT NAME>>
<<MATRIC NUMBER>>

Appendix E: Disclaimer

SCHOOL OF COMPUTING
COLLEGE OF ARTS AND SCIENCES

<<SEMESTER>>

DISCLAIMER

<<CODE/COURSE>>

I am responsible for the accuracy of all opinions, technical comment, factual report, data, figures, illustrations and photographs highlighted in this report. I bear full responsibility that the report submitted has been reviewed and subject to copyright or ownership rights. Universiti Utara Malaysia will not bear any liability for the accuracy of any comment, report and other technical and factual information, and the copyright or ownership right claims.

<<STUDENT NAME>>

<<MATRIC NUMBER>>

Appendix F: Report (Front Page)



UNIVERSITI UTARA MALAYSIA

INDUSTRIAL TRAINING REPORT

<<CODE/COURSE>>
<<SEMESTER>>

<<PROJECT TITLE>>

BY:
<<STUDENT NAME>>

SCHOOL OF COMPUTING
COLLEGE OF ARTS AND SCIENCES

Appendix G: Evaluation Forms

Ref. No	Colour Code	Form
PRAK01	Green	Organisation Supervisor Evaluation Form
PRAK02	Yellow	UUM Supervisor Evaluation Form

Appendix H: IEEE Citation Style Guide

Any citation style is set up to give the reader immediate information about sources cited in the text. In IEEE citations, the references should be numbered and appear in the order they appear in the text. Put the reference number in square brackets when referring to a reference in the document's text. Eg: [1]

The IEEE citation style has 3 main features:

- The author's name is first name (or initial) and last. This differs from the MLA style, where the author's last name is first.
- The title of an article (or chapter, conference paper, patent, etc.) is in quotation marks.
- The title of the journal or book is in italics.

These conventions allow the reader to distinguish between reference types at a glance. The correct placement of periods, commas, and colons, as well as date and page numbers, depends on the type of reference cited. Check the examples below. Follow the details exactly. For example, put periods after the author and book title, cite page numbers as pp. and abbreviate all months to the first three letters (e.g., Jun.)

Carefully check the distinctions between print and electronic sources (especially for journals).

Print References

Book

Author(s). Book title. Location: Publishing company, year, pp.

Example:

W.K. Chen. *Linear Networks and Systems*. Belmont, CA: Wadsworth, 1993, pp. 123-35.

Book Chapters

Author(s). "Chapter title" in Book title, edition, volume. Editor name, Ed. Publishing location: Publishing company, year, pp.

Example:

J.E. Bourne. "Synthetic structure of industrial plastics," in *Plastics*, 2nd ed., vol. 3. J. Peters, Ed. New York: McGraw-Hill, 1964, pp.15-67.

Article in a Journal

Author(s). "Article title". Journal title, vol., pp, date.

Example:

G. Pevere. "Infrared Nation." The International Journal of Infrared Design, vol. 33, pp. 56-99, Jan. 1979.

Articles from Conference Proceedings (published)

Author(s). "Article title." Conference proceedings, year, pp.

Example:

D.B. Payne and H.G. Gunhold. "Digital sundials and broadband technology," in Proc. IOOC-ECOC, 1986, pp. 557-998.

Papers Presented at Conferences (unpublished)

Author(s). "Paper's title," Conference name, Location, year.

Example:

B. Brandli and M. Dick. "Engineering names and concepts," presented at the 2nd Int. Conf. Engineering Education, Frankfurt, Germany, 1999.

Standards/Patents

Author(s)/Inventor(s). "Name/Title." Country where the patent is registered. Patent number, date.

Example:

E.E. Rebecca. "Alternating current fed power supply." U.S. Patent 7 897 777, November 3, 1987.

Electronic References Books

Author. (year, Month, day). Book title. (edition). [Type of medium]. Vol. (issue).

Available: site/path/file [date accessed].

Example:

S. Calmer. (1999, June 1). Engineering and Art. (2nd edition). [Online]. 27(3). Available: www.enggart.com/examples/students.html [May 21, 2003].

Journal

Author. (year, month). "Article title." Journal title. [Type of medium]. Vol. (issue), pages.

Available: site/path/file [date accessed].

Example:

A. Paul. (1987, Oct.). "Electrical properties of flying machines." Flying Machines. [Online]. 38(1), pp. 778-998. Available: www.flyingmachjourn/properties/fly.edu [December 1, 2003].

World Wide Web

Author(s)*. "Title." Internet: complete URL, date updated* [date accessed]. M. Duncan. "Engineering Concepts on Ice. Internet: www.iceengg.edu/staff.html, October 25, 2000 [November 29, 2003].

Odd Sources

Newspaper

Author(s)*. "Article title." Newspaper (month, year), section, pages.

Examples:

B. Bart. "Going Faster." Globe and Mail (October 14, 2002), sec. A p.1. "Telehealth in Alberta." Toronto Star (November 12, 2003), sec. G pp. 1-3.

Dissertations and Theses

Author. "Title." Degree level, school, location, year.

Example:

S. Mack. "Desperate Optimism." M.A. thesis, University of Calgary, Canada, 2000.

Lecture

Lecturer(s). Occasion, Topic: "Lecture title." Location, date.

Example:

S. Maw. Engg 251. Class Lecture, Topic: "Speed skating." ICT 224, Faculty of Engineering, University of Calgary, Calgary, Alberta, October 31, 2003.

Email

Author. The subject line of the posting. Personal email (date).

Example:

J. Aston. "RE: new location, okay?" Personal email (July 3, 2003).

Internet - Newsgroup

Author or Topic*, "Title," Complete network address, date when it was updated [date accessed].

Example:

G.G. Gavin. "Climbing and limb torsion #3387," USENET: sci.climb.torsion, Apr. 19, 2000 [Oct. 4, 2002].

* If you can't find this information, exclude it.

Exact page number References

To refer readers to specific page numbers in a text, use the number of the reference followed by a colon (:) and the page numbers.

Example:

Johnson suggests that citing will lead to a decrease in being cited for plagiarism [1:2829].

The [1] refers to the numbered reference, and the 28-29 refers to the cited pages.

Appendix I: APA 7th Edition Style

This handout is based on the 7th edition of the *American Psychological Association Publication Manual (APA)* but is not a comprehensive guide. For all rules and requirements of APA citations, please consult the 7th edition of the *Publication Manual of the American Psychological Association*.

APA requires that information be cited in 2 different ways—within the text and in a reference list at the end of the paper. The reference list should be on a new page, double-spaced, and use the hanging indent method (all lines after the first one are indented).

See also:

- *Publication Manual of the American Psychological Association*, 6th ed. Washington, DC: American Psychological Association, 2010.
Reference Desk Reserve 808.06615 p976m 2010 (at Reference Desk)
- *Concise Rules of APA Style*, 6th ed. Washington, DC: American Psychological Association, 2010.
Reference Desk Reserve 808.06615 C744r 2010 (at Reference Desk)

CITATIONS IN THE TEXT:

APA uses the author-date method of citation. The author's last name and publication date are inserted in the text appropriately.

When referencing or summarising a source, provide the author and year. Include the page or paragraph number when quoting or summarising a particular passage.

When quoting in your paper, incorporate a direct quote in less than 40 words into your text and use quotation marks. If a direct quote is more than 40 words, make the quotation a freestanding indented block of text and DO NOT use quotation marks.

- **One work by one author:**
 - In one developmental study (Smith, 1990), children learned...
 - In Smith's study (1990), primary school children...
 - In 1990, Smith's study of primary school children...

- **Works by multiple authors:**

When a work has 2 authors, cite both names every time you reference the work in the text. When a work has three to five authors, cite all the author names the first time the reference occurs and then subsequently include only the first author, followed by et al. For example:

First citation: Masserton, Slonowski, and Slowinski (1989) state that...
Subsequent citations: Masserton et al. (1989) state that...

For 6 or more authors, cite only the name of the first author followed by et al. and the year.

- **Works by no identified author:**

When a resource has no named author, cite the first few words of the reference entry (usually the title). Use double quotation marks around the title of an article, chapter, or Web page. Italicise the title of a periodical, book, brochure, or report. For example:

The site seemed to indicate support for homoeopathic drugs ("Medical Miracles," 2009). The brochure argues for homeschooling (*Education Reform*, 2007).

Treat reference to legal materials such as court cases, statutes, and legislation like works with no author.

- **Two or more works in the same parenthetical citation:**

Citations of two or more works in the same parentheses should be listed in the order they appear in the reference list (i.e., alphabetically, then chronologically).

Several studies (Jones & Powell, 1993; Peterson, 1995, 1998; Smith, 1990) suggest that...

- **Specific parts of a source**

Always give the page number for quotations or indicate information from a table, chart, chapter, graph, or page. The word page is abbreviated but not chapter. For example:

The painting was assumed to be by Matisse (Powell, 1989, Chapter 6), but later analysis showed it to be a forgery (Murphy, 1999, p. 85).

If, as in the instance of online material, the source has neither visible paragraph nor page numbers, cite the heading and the number of the paragraph following it. This allows the reader to locate the text in the source. For example:

The patient wrote that she was unimpressed by the doctor's bedside manner (Smith, 2006, Hospital Experiences section, para. 2).

CITATIONS IN A REFERENCE LIST:

Reference should generally contain the author's name, publication date, title, and publication information. Include the issue number if the journal is paginated by issue.

For information obtained electronically or online, include the DOI:

DOI - a unique alphanumeric string assigned to identify content and provide a persistent link to its online location. The DOI is typically located on the first page of the electronic journal article near the copyright notice. No other retrieval information is needed when a DOI is used in your citation. Use this format for the DOI in references: doi: xx.

If no DOI has been assigned to the content, provide the home page URL of the journal or the book or report publisher. Do not insert a hyphen if you need to break a URL across lines; do not add a period after a URL to prevent the impression that the period is part of the URL.

In general, it is not necessary to include database information. Do not include retrieval dates unless the source material has changed over time.

- **Book:**

Strunk, W., Jr., & White, E. B. (1979). *The elements of style* (3rd ed.). Macmillan.

Gregory, G., & Parry, T. (2006). *Designing brain-compatible learning* (3rd ed.). Corwin.

- **Chapter of a Book:**

Bergquist, J. M. (1992). German Americans. In J. D. Buenker & L. A. Ratner (Eds.), *Multiculturalism in the United States: A comparative guide to acculturation and ethnicity* (pp. 53-76). Greenwood.

- **Journal Article with DOI:**

Paivio, A. (1975). Perceptual comparisons through the mind's eye. *Memory & Cognition*, 3(6), 635-647. <https://doi.org/10.3758/BF03197574>

- **Journal Article without DOI (when DOI is not available):**

Becker, L. J., & Seligman, C. (1981). Welcome to the energy crisis. *Journal of Social Issues*, 37(2), 1-7. <https://doi.org/10.1111/j.1540-4560.1981.tb02517.x>.

Hamfi, A. G. (1981). The funny nature of dogs. *E-Journal of Applied Psychology*, 2(2), 38-48. <http://ojs.lib.swin.edu.au/index.php/fdo>

- **Online Newspaper Articles:**

Becker, E. (2001, August 27). Prairie farmers reap conservation's rewards. *The New York Times*. <http://www.nytimes.com>

- **Encyclopedia Articles:**

Brislin, R. W. (1984). Cross-cultural psychology. In R. J. Corsini (Ed.), *Encyclopedia of psychology* (Vol. 1, pp. 319-327). Wiley.

Developmental genetics. (2005). In *Cambridge encyclopedia of child development*. http://0www.credoreference.com.library.muhlenberg.edu:80/entry/cupchi1ddev/developmental_genetics

- **Technical and Research Reports (often with corporate authors)**

Hershey Foods Corporation. (2001, March 15). *2001 annual report*. <http://www.hersheysannualreport.com/2000/index.htm>

- **Book Reviews:**

Dent-Read, C., & Zukow-Goldring, P. (2001). Is modelling knowing? [Review of the book *Models of cognitive development*, by K. Richardson]. *American Journal of Psychology*, 114(1), 126-133.

NOTE: For articles with a DOI, see Journal Article with DOI example.

- **Data Sets:**

Simmons Market Research Bureau. (2000). *Simmons national consumer survey* [Data file]. Author.

- **Blog post:**

Lincoln, D. S. (2009, January 23). The likeness and sameness of the ones in the middle. [Web log post]. Retrieved from <http://www.blogspot.com/lincolnworld/2009/1/23.php>

- **A website with no author or date of publication:**

Census data revisited. (n.d.). Retrieved March 9, 2009, from Harvard, Psychology of Population website: <http://harvard.edu/data/index.php>

Do not include retrieval dates unless the source material may change over time. If no DOI has been assigned to the content, provide the homepage URL.

- **Reprint from Another Source:**

- Citation in the text:

(Newton, 1998/1999).

- Reference List Citation:

Newton, W. (1999). Return to Mars. In C. Mari (Ed.), *Space exploration* (pp. 32-41). H.W. Wilson. (Reprinted from *National Geographic*, pp. 2-26, August 1998)

- In this example of a reprinted book review, the book's author is named first, followed by the editor of the reprinting source, then the reviewer. In your parenthetical citation, it is necessary to name the book's author while the reviewer is named to distinguish it from other reviews of this book.