



GUIDE BOOK

INDUSTRIAL TRAINING FOR STUDENTS

**FACULTY OF MECHANICAL ENGINEERING
UNIVERSITI TEKNOLOGI MALAYSIA
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FOREWORD

This Guide Book consists of guidelines for the off-campus Industrial Training students. It is expected to assist the students with their responsibilities and the implementation of the off-campus Industrial Training.

We hope that with this guidelines, the Industrial Training Program can be carried out smoothly and effectively thus the objective of the program can be achieved.

Industrial Training Committee
Faculty of Mechanical Engineering
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1.0 INTRODUCTION

1.1 Background

All Faculty of Mechanical Engineering undergraduate students are required and compulsory for them to undergo 12 weeks of Industrial Training during the duration of their studies. This training is part of the teaching course that provide hands on exposures in the working environment after gaining theories from lectures.

1.2 Related Programs for Industrial Training

Bachelor programs that required Industrial Training are as follows:-

- i. Bachelor of Mechanical Engineering with Honours (SEMMH)
- ii. Bachelor of Engineering (Naval Architecture And Offshore Engineering with Honours) - SEMOH
- iii. Bachelor of Mechanical Engineering with Honours (Aeronautics) - SEMTH
- iv. Bachelor of Mechanical Engineering with Honours (Automotive) - SEMVH
- v. Bachelor of Mechanical Engineering with Honours (Materials) -SEMBH
- vi. Bachelor of Mechanical Engineering with Honours (Manufacturing) - SEMPH
- vii. Bachelor of Mechanical Engineering with Honours (Industrial) -SEMIH

Students will undergo training in Year Three in short semester of their studies. To undertake this Industrial Training, students must get minimum grade D-(30%) for the core courses (SEMM2123, SEMM2223, SEMM2323, SEMM2423, SEMM2433 and SEMO2123) and obtained at least a total of 80 credits.

2.0 OBJECTIVES OF INDUSTRIAL TRAINING

The objectives of Industrial Training are to enhance students' knowledge and skills to a career in their respective professions, as well as to produce graduates with professional, ethical, skilled, creative and competent.

3.0 OBJECTIVES

Industrial Training objectives are:

- i. to expose students to the environment and working conditions in their respective fields
- ii. to gain working experiences in the organization/industry related field of study
- iii. to use the knowledge of the Industrial Training, which was followed at university
- iv. to train students to interact and communicate effectively at all levels in the workplace
- v. to train students to prepare technical reports related to the Industrial Training which conducted
- vi. to inspire a spirit of working as a team
- vii. to appreciate the ethical values of their profession

4.0 SCOPE AND TRAINING PROGRAM

The scope of training to be passed by students in the company/organization includes various aspects such as:

- i. to observe organization's operations/ factories/ companies
- ii. to perform operations by making use of machinery and equipment
- iii. to work on the installation and fabrication
- iv. inspection and quality control
- v. to work on process control and instrumentation
- vi. to work on project design
- vii. maintenance and repair of machinery and equipment
- viii. installation of new equipment and testing
- ix. management and administration
- x. consultation

However, the scope and the actual training program is depends on the type of companies/organizations involved. The program which only requires students to carry out production work alone is not sufficient and will not ratify by the faculty.

The companies/organizations are requested to provide appropriate training to students who will work as an engineer/industrial designer after completing their studies.

The appointed Faculty's supervisor will visit the company/organization to monitor and discuss about student progress.

Company/organization's supervisor is requested to submit student's evaluation reports at week 12 of training, which is shortly after the end of Industrial training.

5.0 TRAINING ATTENDANCE

During the training, students must comply with the rules established by the company/organization, The company/organization is encouraged not to give permission to students to take leave during the training period except for emergencies or company's day off.

Students who wanted to take leave due to illness, must enclosed a medical certificate and are only allowed not more than 7 days to which no replacement needed to cover the days of leave taken

6.0 ROLE OF THE COMPANY/ORGANIZATION

To ensure that the Industrial Training program runs smoothly, the company/organization is expected as follows:

i) To appoint industrial's supervisor

Among the role of industrial's supervisors are:

- To inform the faculty willingness to accept students within one month from the date of application/before training begins.
- To appoint officers as student's supervisor
- To develop overall training plan after discussions with representative from departments who involves in the training program. The planned programme should gives as much as possible the experience/exposure in line with the existing facilities at the company/organization, and taking into account student's academic level.
- To provide a brief background on the company/organization and to inform overall training programs to students. Plans are updated as necessary if there is feedback from students.

- To complete the administrators report (Form BLP-03) after consultation with the supervisor involved during the training if necessary.
- ii. To appoint the site supervisor (the actual place the students undergo their Industrial Training)

Among the responsibilities of the site supervisors are:

- Discuss with the students to work out on weekly activities
- To supervise the student's works
- To do a weekly evaluation about the work done by the students in the log book (Part B)
- To inform student's performance to the trainer's supervisor, if necessary
- To coordinate, guide and provide guidance to students who are undergoing Industrial Training
- Review the log book
- Evaluate the performance of students in the organization

Explanations in (i) and (ii) are for situations where the training's program involving several sections. If the training program involves just one site/section only, the site's supervisor and training's supervisor is the same officer/person. Therefore, the officer must perform both responsibilities in (i) and (ii).

- iii. To provide reasonable training's facilities to the students.
- iv. To consider giving some allowances to students who undergo their Industrial Training.
- v. To allow faculty's appointed supervisor to visit the company/organization for supervision purposes.
- vi. To issue a certificate of completion to students at the end of the training program

7.0 ASSESSMENT OF TRAINING

The performance of students during their Industrial Training and personality development should be evaluated by both faculty's supervisor and industrial's supervisor. The assessment includes quality of work and student's personality. In overall Industrial's Training assessment are includes:

- i. Observations and reports from faculty's supervisor
- ii. Observations and reports from the supervisor's of the company/organization
- iii. Examination of log books
- iv. Examination of the final report

7.1 Industrial/Organization Supervisory Report [30%]

Industrial supervisor is also requested to assess student's performance. The assessment of students includes job performance, work and character. **BLP-03** (enclosed) is used for the purposes of this assessment. Overall mark for this report is 30%. Industrial's supervisors are required to provide an assessment of student performance which includes the two scopes as below :

- a. Performance of work
 - Knowledge of work
 - The credit for completing work on time
 - The time taken to obtain job skills
 - The need for supervision
 - Quality of work
- b. Personality
 - The ability to communicate
 - Initiative and motivation
 - Attitude towards work
 - Discipline

7.2 Log Book [10%]

Log book is a student's diary. Through log book, the supervisor can understand the activities undertaken by students during their Industrial Training. Log book contains all the job experiences, discussions with supervisors, comments, data and information from the company/organization, and library's references. This information is listed in Part B & C in the log book.

8.0 INSURANCE, MEDICAL AND LETTER OF INDEMNITY

All UTM students are covered with insurance group based on the 'Group Personal Accident Takaful' (GPAT), which covers bodily injury that may be experienced by students as long as they are registered as a UTM's student, subject to conditions as mentioned in the GPAT's certificate.

During the Industrial Training, students can get treatment at any government's clinics or hospitals. In emergency cases, and where no government's clinics or hospitals in the area of training, students can be treated to a clinic or private hospital for immediate medical treatment. All related expenses can be claimed back from UTM with the receipts/relevant documents presented as evidence.

The Faculty of Mechanical Engineering will issue a letter of indemnity to the company/organization which have accepted students from the faculty to undergo **their Industrial Training**.

9.0 COMMUNICATIONS

The Company/organization providing the industrial training to students may contact the address or phone number below should they encountered any problems related to the training program. The company/organization is required to inform the faculty, the name of the person in charge/officer who is responsible for conducting Industrial Training for students.

Address : Faculty of Mechanical Engineering ,
Universiti Teknologi Malaysia, 81310 UTM, Johor Bahru, Johor
Tel : 07-5557074 (direct line)
Fax : 07-5557097
E-mail : tpfkm@mail.fkm.utm.my
Web-site : <https://mech.utm.my/>

10.0 CONCLUSION

With the implementation of Industrial Training, it is hoped that all parties i.e the students, the company/organization and the faculty/university will gain benefits thus contributing towards national development. Exposures given to students are expected to benefit them towards completing their studies in the university and gained experiences with the real working environment.