Laboratory Guidelines

Faculty of Engineering

This document can be viewed and printed at http://foe.mmu.edu.my/lab

Definitions

1. Lab Session: Allocated time period for student to conduct experiment related to the subject.

2. Lab sheet: Handout prepared by the lecturer in order to guide the students in doing the experiment.

3. Lab report: Report prepared by student who has attended the lab session. It is used to document observation, experiment data collection, discussion and conclusion derived by the student from the experiment. Lab report is an individual work.

4. Lab Coordinator Lab coordinator is the staff member responsible for preparing lab schedules and groupings for lab sessions.

5. Lab Instructor Academic staff (lecturer, tutor) on duty during lab session. The staff will provide assistance and guidance to the students when conducting experiment.

1. Introduction

Laboratory session is an integral part of the subject taught in the classes. By attending lab session, students will have opportunity to conduct experiments and to be exposed to the practical aspects of the subject. Experiments allow students to apply and test the theory learned in the class, which will help strengthen the understanding of the subject. It is therefore an important part of learning activities that all students must participate in. This guideline serves as a policy, rules and regulations that all students must follow when they use the lab and when attending lab sessions.

The smooth operation of the laboratory depends upon staff and students alike adopting a code of practice.
2. Preliminary

a. Participation in the lab session is compulsory to all students who have registered for the subject.

b. Attendance will be taken during the experiment. Only students who have attended the lab session are allowed to submit Lab reports.

c. Students are generally allowed 1-2 weeks to submit the lab report. Please refer to the subject coordinator.

d. Lab report is to be submitted to the lab where the experiment is conducted.

e. Lab report is an individual work. Fabricating result and copying report of others are strictly prohibited.

f. Students are expected to study the lab sheet as a preparation before coming to the lab session. Instructors may conduct on-the-spot evaluation during lab session.

g. Lab instructor may conduct briefing to the students at the start of the experiment. This briefing includes the procedure, technical and safety aspect of the experiment.

h. Experiment must be completed within the designated time.

i. Lab Session Hour
   Monday – Friday  9.00am – 12:00pm and 2:00pm – 5:00pm
   On Friday 2.30pm to 5.30pm
   Saturday (Alternate) 9.00am – 12:00pm

3. Attendance

a. Student MUST be PUNCTUAL for laboratory session.

b. Students who are late by more than 30 minutes are not allowed to do the experiment. Only students with valid reason are allowed to apply for lab replacement. (See lab replacement guidelines: 5.0)

c. Student must sign in and sign out when attending the lab session. Student is to show obtained experiment results to the lab instructor before allowed to sign out and leave the lab. Student who want to leave the lab early after completing the experiment need to seek permission from the lab instructor. In order to sign out, the student shall request the lab staff to check their workbench equipment before being allowed to sign out on the attendance. Lab report with incomplete lab session attendance will not be accepted.
4. Lab Schedule

a. Lab schedule is organized by the lab coordinator to arrange the lab session for all the students taking subjects which have lab experiments. This is done to optimise the lab resource sharing.

b. The lab schedule is referred by the student to identify the date and time of a particular experiment.

c. Lab schedule and lab group will be announced in the bulletin board and is available on the lab website [http://foe.mmu.edu.my/lab](http://foe.mmu.edu.my/lab) in the first week of the trimester.

d. Lab schedule is to be followed strictly by the student. If there is a problem in following the lab schedule due to clashes, the student must see the lab coordinator to resolve the problem within the first 3 weeks of the trimester. Students must ensure that they are assigned to a lab group that enable them to attend all experiments for their registered subjects by the 3rd week of the trimester.

e. Lab grouping is done by the lab coordinator, where the students are grouped into small groups that will perform experiment on a particular fixed date. Lab group must be followed strictly. Request to change lab group other than "clashes issues" is not allowed.

f. Students are not allowed to change their experiment date without approval. (See lab replacement guidelines: 5.0)

5. Lab Replacement

a. Lab replacement is only allowed for valid medical and emergency reasons. Evidence is to be shown to support the reason given.

b. Students are to request replacement within 3 working days after the missed lab session day. Replacement is applied by using the lab replacement form ([Appendix II](#)). The form is available at the lab website (student resource section [http://foe.mmu.edu.my/lab/studentres.htm](http://foe.mmu.edu.my/lab/studentres.htm))

c. Recommendation for replacement shall be requested from the subject coordinator after valid reason is presented for consideration.

d. Upon gaining recommendation, the student shall immediately see the lab coordinator within 3 working days to arrange for a suitable replacement date. The approval and replacement date are subject to lab availability for the particular experiment chosen. The lab replacement flow is attached in [Appendix I](#).
Faculty of Engineering, Multimedia University

6. Lab Regulation

(a) GENERAL RULES

a. Students are not allowed to work alone without supervision from the lab staff/instructor. Unauthorized experiment is not allowed.

b. All students must observe the MMU Dress Code while in the laboratory.

c. Foods, drinks and smoking are NOT allowed.

d. All bags must be left at the indicated place.

e. Refer to the lab staff if you need any help in using the lab.

f. Respect the laboratory and its other users. Noise must be kept to a minimum.

g. Workspace must be kept clean and tidy after experiment is completed.

h. Handle all apparatus with care. Observe safety measures at all time.

i. All students are liable for any damage to equipment due to their own negligence. Student who damages equipment due to their own negligence will have their name recorded for investigation. If an equipment is suspected to be malfunctioning, report suspected faulty equipment to the lab staff.

j. Try to develop an instinctive awareness of the material (financial) value of laboratory equipment and treat it with respect. Damaged equipment can jeopardise the success of not only your own experiment but also those of your friends.

k. Certain equipment must be shared. Do not interfere with or remove any piece of equipment from it's original location without consulting the Lab Staff. All equipment, apparatus and chairs must be RETURNED to their original place after use.

l. Students are strictly PROHIBITED from taking out any items from the laboratory without permission from the Lab Supervisor or Lab Staff in charge.

m. Please consult the Lab Supervisor, instructor or lab staff if you are not sure how to operate the laboratory equipment. Never use unfamiliar equipment without first consulting the Lab Instructors. Do not remove trade/technical manuals from the laboratory.
n. Report immediately to the Lab Supervisor/ lab staff if any injury occurs.

o. Report immediately to the Lab Supervisor / lab staff any damages to equipment, hazards, and potential hazards.

p. Please refer to the Lab Supervisor/ lab staff should there be any concerns regarding the laboratory.

q. Please check the laboratory notice board or web site http://foe.mmu.edu.my/lab regularly for any updates and announcements.

r. Refer to subject coordinator on lab report submission deadline.

s. Disciplinary action can be taken against students who fail to comply with the regulations. Action including being barred from using the lab for a certain period of time. Disciplinary action is subject to the Dean of Engineering.

**(b) SAFETY RULES**

1. For safety purposes, it is essential that an orderly and tidy working environment is maintained. All persons working in the laboratories are individually responsible for ensuring that their working areas are so maintained.

   There are a number of potential hazards in the laboratories. It is, therefore, essential that good laboratory working procedures are maintained for the safety of all personnel.

2. Study the procedures for using the equipment before actually using it. This information is usually available in the lab sheet.

3. Electric shock is fatal to human being. Scientific studies show that current in excess of 100mA will cause almost certain death.

4. Do not work with electricity in the presence of aqueous or other potentially conducting solutions, nor should your hands or other body parts be wet, or damp.

5. If you feel a tingle in working with electrical devices - STOP. Unplug the devices, leave a note and inform the lab staff / instructor of the malfunction. Check that the apparatus has been repaired before you use it again.

6. Inform lab staff and instructors if any unsafe condition is found/detected.

7. **Open-toed** shoes or sandals provide no protection from contact hazards. Sandals/slippers or open-toed shoes are NOT allowed. Only closed shoes are allowed in the lab. High heel shoes are not allowed in the lab.

8. Attire: Students working in the lab must tie their hair or enclose their long hair with a cap except in Computer Labs.
9. Certain labs such as the Energy System lab and Machine and Drive lab have specific rules with regards to the use of the specific equipment in the lab. This is due to the higher risk of exposure in such labs due to the presence of high voltage. Students must read and understand the safety rules before operating the high voltage equipment.

10. When operating high voltage equipment, always ask the lab staff or instructor to verify the circuit before energizing the circuit. The practise of using only one hand (keeping one hand in your pocket) while working on high voltage circuits is strongly advised. This is to avoid current passing from one hand to the other hand.

11. Please observe laser safety procedures in the Optical lab. Do not look directly into a laser source.

12. Protective eye gear must be worn when using the drilling machine.

13. Students are not allowed to handle chemical without permission and supervision by the lab staff. Usage of chemical must be recorded in the logbook. Glove, apron and mask should be worn when handling corrosive and reactive chemical.

14. Hazardous agents must be stored correctly and labelled correctly. Consult material safety data sheet prior to use.

(c) RULES ON COMPUTER USAGE

1. Booting-up computers from floppy disks is strictly PROHIBITED.

2. Students should never interfere with the original computer configuration or setup: BIOS setup, Windows Operating System setup, Files and Directory created, etc.

3. Students are NOT ALLOWED to install Software or Hardware inside computers in the laboratory. Request for installation should be directed to the lab staff.

4. Unauthorized copying of software, or using illegally copied software is strictly FORBIDDEN.

5. Respect the privacy of others by refraining from accessing their files or electronic mails.

6. Students must promptly relinquish from using the PC for scheduled classes/lab sessions or upon request by Laboratory Supervisor.

7. Computer games are strictly FORBIDDEN in the laboratory.

8. DO NOT show, view, copy, download or scan pornographic materials in any form.
7. Copyright

1. Pursuant to the provisions of the Copyright Act 1987 (the Act), the student shall not during his/her tenure at the University or thereafter engage in any unauthorised act of copying or reproducing or attempt to copy / reproduce or cause to copy / reproduce or permit the copying / reproducing or the sharing and / or downloading of any copyrighted material or an attempt to do so whether by use of the University’s facilities or outside networks / facilities whether in hard copy or soft copy format, of any material protected under the provisions of sections 3 and 7 of the Act whether for payment or otherwise save as specifically provided for therein. This shall include but not be limited to any lecture notes, course packs, thesis, text books, exam questions, any works of authorship fixed in any tangible medium of expression whether provided by the University or otherwise.

He/She further undertakes as an authorized user of any and/or all the systems within and/or outside MMU including but not limited to ICEMS, MMLS, MYREN etc not to :-

- damage any system;
- obtain extra resources not authorized to these systems’ user;
- deprive another user of authorized resources; and
- gain unauthorized access to systems by use of a special password, another user’s password. and / or exploiting loopholes in the these systems’ security system

Disclaimer:
In the event of any infringement of the provisions of the Copyright Act 1987 whether knowingly or unknowingly the University shall not be liable for the same in any manner whatsoever and any individual, student, organization, body or group of students of the University shall be personally liable for all such acts of infringement and shall undertake to indemnify and keep indemnified the University against all such claims and actions.
LABORATORY GUIDELINE FORM

I hereby further declare that I have read and understood the above laboratory guidelines and also in the event of any infringement of the provisions of the Copyright Act, stated in the laboratory guidelines, whether knowingly or unknowingly the University shall not be liable for the same in any manner whatsoever and undertakes to indemnify and keep indemnified the University against all such claims and actions.

........................................................................
(Student Signature)

Student Name : ........................................................................

Student ID : ...............................................................................

Course : ....................................................................................

Date : ......................

1. Please submit this form ONLY to the lab staff at the end of Laboratory Induction Session.
2. Please read carefully and understand the contents before putting down your signature in the form.
3. Please keep the Laboratory Guidelines for your future reference.
Lab Replacement Flow

1. Fill in lab replacement form after missing lab session

2. Approach the subject coordinator to obtain recommendation, after presenting evidence of medical/emergency reason. (Within 3 working days upon missing lab session)

3. Recommended by Subject Coordinator?
   - YES: Obtain replacement date from Lab Engineer. (Within 3 working days upon recommendation)
   - NO: Appeal to Lab Management Committee Chairman

4. Attend lab replacement at the assigned date

Lab Schedule can be downloaded from:

http://foe.mmu.edu.my/lab/SR.htm
## APPLICATION FOR LAB REPLACEMENT

*only medical leave with MC and compassionate/emergency leave can apply

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<thead>
<tr>
<th>Section A – To be filled up by Applicant</th>
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<tbody>
<tr>
<td><strong>Date of Experiment</strong></td>
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<td><strong>Name</strong></td>
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<td><strong>Phone No</strong></td>
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<td><strong>Email</strong></td>
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<td><strong>Lab Group</strong></td>
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<td><strong>Subject Code &amp; Title</strong></td>
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<td><strong>Lab Venue</strong></td>
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<td><strong>Reason for change</strong></td>
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**Applicant's Signature**

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<tr>
<th>Section B - Approval / Rejection</th>
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<tr>
<td><strong>Verification by Subject Coordinator</strong></td>
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<tr>
<td>New Lab Session Date: …………………</td>
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<td>Joining Group: ………</td>
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<td>(Signature &amp; Stamp)</td>
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<td>Please Circle: Approve / Reject *</td>
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<td>Comment:</td>
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**Note:**

- *This form is to be used for one subject/experiment only.*
- *Applicants should note that only medical leave with MC and compassionate/emergency leave will be entertained.*
- *Application should be made 3 DAYS in advance before the proposed new lab session date.*
- *Application should be made before the scheduled lab session begins, unless of emergency cases.*
- *Approval subject to vacancy and case to case basis.*
- *Approval subject to vacancy and case to case basis.*
- *Decision made by lab staff and subject coordinator is final.*
- *For rejection, student should forward their appeal to LMC Chairman.*

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<th>Section C - Verification</th>
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<td><strong>Verification by Lab Staff</strong></td>
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<td><strong>(Signature &amp; Stamp)</strong>*</td>
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<th>Student Copy</th>
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<td>Time of Experiment: ………………………………………</td>
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<td>Subject/Experiment Code: ……………………………………</td>
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<td>Group Joining: ………………………………………………</td>
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<td>Lab Staff Signature &amp; Stamp</td>
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