

GENERAL INFORMATION

Laboratory Sessions

(Semester 5)

Session 2017/2018
Department of Mechanical Engineering
National University of Singapore

LABORATORY SESSIONS

1. Purpose

Laboratory sessions provide training in practical engineering skills. With the modular system, the laboratory sessions are part and parcel of a module. The grades obtained for the laboratory sessions will contribute towards the final grade of the module.

2. Organisation

The attached laboratory time-table is for students taking the recommended modules for the semester. Students not taking any of the listed modules need not attend the respective attached laboratory sessions. The laboratory sessions are compulsory for students taking the modules.

3. Laboratory Classes

3.1. Attendance

Attendance is compulsory. The department will not entertain requests for re-scheduling of laboratory sessions due to student negligence (e.g. forgetting or mis-reading the schedule), or personal reasons (e.g. birthday celebration, hall activities, driving test). Documentary evidence must be produced for exceptional circumstances (e.g. illness) before a re-scheduling is permitted. The students concerned have to seek permission from the laboratory co-ordinator for re-scheduling. You have to seek permission from the experimental supervisor if there is any urgent need for you to leave the lab session earlier.

You will not be permitted to attend any session if you are late by more than fifteen minutes.

Students who are absent without any valid reason **may be barred** from taking the respective examinations.

3.2 Lab Report

For each module, a student will be required to write two lab reports. You can download the lab manuals from the IVLE system (<https://ivle.nus.edu.sg/>) when the semester starts. Generally, the lab reports have to be completed within the 3-hour sessions. Penalty will be imposed for late submissions.

The above guidelines are to be strictly observed, unless otherwise specified by the lecturers-in-charge. The format lab report is attached for your reference.

3.3 Safety

As you will be working with electrical and mechanical equipment, you **are required to wear toe-covered shoes** and take appropriate precautions when you are in the laboratory or workshop. The workshop and some laboratories require the students to put on long pants. Students not in compliance with the safety requirement **will be barred** from the laboratory session.

4. Copying

Students are hereby warned that copying of lab reports is a serious offence and it may lead to **expulsion from the University**. The technologists have been instructed to confiscate all copies of lab reports not belonging to the students concerned during the lab sessions.

5. Queries

You may contact Dr. ONG Eng Teo (Office: EA-05-08, 6156-2556, mpeoet@nus.edu.sg) for any problem, query or constructive suggestion regarding the lab sessions.

GUIDELINE FOR WRITING LAB REPORTS

All lab reports must be completed within the duration of experiments, unless decided otherwise by the lecturers-in-charge. In general, the report should consist of:-

- 1) Title
- 2) Aim or Objective
- 3) Record(s) of data
- 4) Discussion in point forms
- 5) Conclusion

The report is to be handed in for grading at the end of the experiment.

Laboratory Timetable for Semester 5, 2017/2018

Monday 0900-1200	<u>Monday subgroups</u>									
	3A1	3B1	3C1	3D1	3E1	3F1	3G1	3H1		
	Wednesday 0900-1200	<u>Wednesday subgroups</u>								
		3A2	3B2	3C2	3D2	3E2	3F2	3G2	3H2	
		Friday 0900-1200	<u>Friday subgroups</u>							
			3A3	3B3	3C3	3D3	3E3	3F3	3G3	3H3
04/09/17	06/09/17	08/09/17	L1	L4			L2	L3		
11/09/17	13/09/17	15/09/17	L3	L1	L4			L2		
18/09/17	20/09/17	22/09/17		L3	L1	L4			L2	
Recess Week										
02/10/17	04/10/17	06/10/17			L3	L1	L4			L2
09/10/17	11/10/17	13/10/17	L2			L3	L1	L4		
Public holiday: Deepavali on 18/10/17										
23/10/17	25/10/17	27/10/17	L4	L2			L3	L1		
30/10/17	01/11/17	03/11/17			L2				L1	
06/11/17	08/11/17	10/11/17				L2				L1

** Note: For students taking ME2142 in this semester, you are required to register in one of the subgroups from 3As to 3Fs only. This is because the lab sessions for this module will be conducted only for 6 weeks in these subgroups.*

	Module Code	Topics	Venue
L1	ME2142-1	Frequency Response	Control & Mechatronics Lab 1 – EA-04-06
L2	ME2142-2	Speed/Position Control	Control & Mechatronics Lab 2 – EA-03-06
L3	ME3122-1	Temperature Measurements	Energy Conversion Lab – E2-B-02
L4	ME3122-2	Forced Convection Heat Transfer	Thermal Process Lab - EA-05-50

Laboratory Timetable for ME2143 – Sensors & Actuator, 2017/2018

Date of experiments (1400 – 1700)	Lab	Mon	Tue	Wed	Thu	Fri
Week 6 – (18/09/17 to 22/09/17)	L1	A1	A2	A3	A4	A5
Week 12 – (06/11/17 to 10/11/17)	L2	B1	B2	B3	B4	B5

** Note: The two labs L1 and L2 will be conducted on week 6 and week 12, respectively.
For each lab, there will be five sessions allocated for the week, from Mon to Fri @ Control & Mechatronics Lab 1 – EA-04-06 (1400-1700).*

Module Code	Topics	Venue
L1 ME2143-1	Linear Circuits	Control & Mechatronics Lab 1 – EA-04-06
L2 ME2143-2	Motor Characteristics	Control & Mechatronics Lab 2 – EA-03-06