

Dyson School of Design Engineering

DE 2 Electronics 2 DRAW week Laboratory Oral Examination Guidelines

Peter Cheung, version 2.5

Assessment of Lab 1 to Lab 3 will be in the form of a 15-minute oral examination for each student with one of four assessors on Tuesday 10th Feb 9.00 to 12.00, or 13.00 to 15.30. All orals will be conducted in person in Room 110, RCS1 Building (underneath the academic staff corridor adjacent to the Dyson Building). If you are unable to attend the Lab Oral at the appointed time, please find someone willing to swap with you and inform me via email. A schedule for the examination is included on the next two pages. **This is a formal assessment, and you are REQUIRED to be present at the allotted time.**

The purpose of the Oral examination is to establish how much you have learned in respect to the learning outcomes of these Lab Sessions. Questions will be asked which aim to establish your level of engagement and understanding, and how well you have conducted the experiments including the effective use of your logbook. Your logbook **MUST BE** available during the oral examination, so that you can refer to its contents. Bring your laptop with you and have the logbook ready for the Assessor to read through quickly. Please arrive at assessment location at least 5 minutes before your allotted time and wait quietly outside until you are called. (Do not loiter around the assessment station.)

The learning outcomes for each Lab are summarized below. It is helpful if you consider to what extent you have understood with respect to this list of learning outcomes.

Lab 1: Matlab basics

Learn to use basic Matlab features, e.g. plotting graphs; understanding of the time domain and frequency domain views of signals.

Lab 2: Signal Processing with PyBench & Matlab

How Pybench board communicate with Matlab programming environment; generation and capture of signals on the board; spectral domain analysis of sound captured by microphone; effect of under sampling and its consequence; interpretation of results returned by the `fft(.)` function in Matlab; frequency resolutions of spectrum; strength of harmonic components for periodic signals such as square waves and triangular waves; manipulation of sound files stored as .WAV files on a computer; signal segmentation using instantaneous energy; beat extraction of musical sound.

Lab 3: System Characterization and Transfer Function

DC response of a non-linear system; understand of system modeling in mathematics (in s-domain); meaning of transfer functions; how to obtain frequency response from the transfer function of a "black-box" system; step-response of a system; using Matlab to do the above; difference between the measured and predicted frequency response of the bulb board.

DESE50002 - Electronics 2 - DRAW week Lab Oral - Tue 10 Feb 2026

Group	Surname	First Name	Time	Assessor
35	Ali	Leila	10.15 - 10.30	Assessor_3
1	Aphiphunya	Peppe	14.30 - 14.45	Assessor_3
2	Atsavasirilert	New	15.00 - 15.15	Assessor_2
3	Birch	Joseph	09.45 - 10.00	Assessor_5
42	Brand	Lucian	11.30 - 12.00	Assessor_4
41	Carpenter	Ted	09.00 - 09.15	Assessor_2
31	Chaisen	Preme	14.45 - 15.00	Assessor_4
4	Chen	Joe	09.00 - 09.15	Assessor_1
33	Chen	Yanxu	13.30 - 13.45	Assessor_4
37	Cowell	Josh	14.15 - 14.30	Assessor_2
23	Enebeli	Ikem	09.45 - 10.00	Assessor_4
24	Fadahunsi	Aliyah	13.45 - 14.00	Assessor_3
40	Fasoro	Amarie	15.00 - 15.15	Assessor_1
3	Fisher	Shaan	09.30 - 09.35	Assessor_5
34	Foschi	Chiara	10.45 - 11.00	Assessor_2
12	Fryer	Yasmin	13.15 - 13.30	Assessor_1
49	Garlapalli	Vaishnavi	15.15 - 15.30	Assessor_1
49	Garvey	Eliza-Mae	15.15 - 15.30	Assessor_2
44	Gaunt	Kaiyu	11.15 - 11.30	Assessor_3
43	Hampel	Nell	14.15 - 14.30	Assessor_5
23	Hett	Noah	09.30 - 09.35	Assessor_4
6	Huang	Zhuangyi	11.15 - 11.30	Assessor_1
7	Ishikawa	Coe	13.00 - 13.15	Assessor_5
35	Jones	Mayli	10.00 - 10.15	Assessor_3
32	Kan	Niki	14.30 - 14.45	Assessor_1
32	Kanagasabay	Emily	14.15 - 14.30	Assessor_1
8	Kancal	Arda	13.00 - 13.15	Assessor_3
9	Kara	Hanan	13.15 - 13.30	Assessor_2
12	Karim	Ayden	13.00 - 13.15	Assessor_1
7	Kaura	Devanshi	13.15 - 13.30	Assessor_5
2	Kim	Ellie	14.45 - 15.00	Assessor_2
10	Koteyar	Ananya	09.45 - 10.00	Assessor_1
41	Lee	Tiffany	09.15 - 09.30	Assessor_2
11	Li	Haoyang	10.45 - 11.00	Assessor_4
28	Li	Fiona	10.15 - 10.30	Assessor_1
36	Li	Yutong	15.00 - 15.15	Assessor_5
13	LIANG	LOK HANG	11.15 - 11.30	Assessor_5
37	Light	Curtis	14.30 - 14.45	Assessor_2
14	Liu	Yixuan	09.45 - 10.00	Assessor_2
47	Liu	Stanley	10.45 - 11.00	Assessor_5
45	Llinares Pera	Elena	15.00 - 15.15	Assessor_3
13	Long	Yile	11.30 - 12.00	Assessor_5
15	Luk	Janice	09.15 - 09.30	Assessor_3
48	Mcneill	Hamish	15.15 - 15.30	Assessor_5
16	Meng	Jiashuo	10.15 - 10.30	Assessor_4

17	Min	Rui	14.30 - 14.45	Assessor_4
43	Mooney	Dermot	14.30 - 14.45	Assessor_5
15	Mumtaz	Aliza	09.00 - 09.15	Assessor_3
18	Muntazir	Zayn	10.45 - 11.00	Assessor_1
19	Murdoch	Ruaridh	11.15 - 11.30	Assessor_2
42	Nam	Alex	11.15 - 11.30	Assessor_4
38	Neerukonda	Amey	09.30 - 09.35	Assessor_3
28	Nilforooshan	Tara	10.00 - 10.15	Assessor_1
17	Pan	Jingyi	14.15 - 14.30	Assessor_4
21	Pointon	Freddie	13.45 - 14.00	Assessor_5
30	Purcell	William	13.30 - 13.45	Assessor_1
34	Qazi	Safaa	11,00 - 11.15	Assessor_2
38	Ravisankar	Gautham	09.45 - 10.00	Assessor_3
14	Rodrigo	Udya	09.30 - 09.35	Assessor_2
22	Ryder	Aidan	13.30 - 13.45	Assessor_2
11	Salt	Charlie	11,00 - 11.15	Assessor_4
18	Shahabuddin	Yousuf	11,00 - 11.15	Assessor_1
46	Shao	Jiale	13.15 - 13.30	Assessor_4
45	Sheth	Suryansha	14.45 - 15.00	Assessor_3
44	Singh	Karanjeet	11.30 - 12.00	Assessor_3
50	Song	Cici	15.15 - 15.30	Assessor_3
24	Spawforth	Tim	13.30 - 13.45	Assessor_3
8	Srikakulam	Veda	13.15 - 13.30	Assessor_3
33	Sui	Zirun	13.45 - 14.00	Assessor_4
40	Surtani	Kyara	14.45 - 15.00	Assessor_1
16	Tam	Yau Yau	10.00 - 10.15	Assessor_4
21	Taylor-Robin	Mia	13.30 - 13.45	Assessor_5
25	Tu	William	10.15 - 10.30	Assessor_5
31	Vivatanapras	Muk	15.00 - 15.15	Assessor_4
1	Wang	Jason	14.15 - 14.30	Assessor_3
26	Wang	Boxuan	10.45 - 11.00	Assessor_3
27	Wang	Chengyu	10.00 - 10.15	Assessor_2
6	Weng	Zipei	11.30 - 12.00	Assessor_1
22	Whitaker	Leia	13.45 - 14.00	Assessor_2
19	Wijeratne	Rhys	11.30 - 12.00	Assessor_2
30	Wolff	Maxim	13.45 - 14.00	Assessor_1
4	Xia	Simon	09.15 - 09.30	Assessor_1
25	Xu	Youcheng	10.00 - 10.15	Assessor_5
26	Xu	Aaron	11,00 - 11.15	Assessor_3
46	Xu	James	13.00 - 13.15	Assessor_4
47	Yin	Unico	11,00 - 11.15	Assessor_5
27	YU	Siyi	10.15 - 10.30	Assessor_2
9	Zhang	Jiarui	13.00 - 13.15	Assessor_2
36	Zhao	Jingyi	14.45 - 15.00	Assessor_5
10	Zhou	Ziqi	09.30 - 09.35	Assessor_1
50	Zhou	Yuxuan	15.15 - 15.30	Assessor_4

Tuesday 10 February 2026

Name of Student:

Names of Assessors:

Time: AM/PM

GRADE:

Performance on the Lab Experiments (put an 'X' on the scale)

1. Logbook Quality and Effectiveness

Highly effective	Effective	OK	Weak	Poor
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2. Ability to answer questions from the logbook

Excellent	Good	OK	Poor	Very poor
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3. Engagement & effort in completing Lab 1 to 3

Fully engaged Strong evidence	Good engagement Good evidence	Acceptable Engagement	Below expected Engagement	V. poor Engagement
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Understanding and Learning Outcomes

4. Explanation on theories behind experiments

Excellent	Good	OK	Poor	Very poor
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5. Examiner's opinion on candidate's depth of understanding in general

Broad & deep	Good	Average	Less than average	Poor
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FEEDBACK TO STUDENT:
