



Queen Mary
University of London

GENERAL LABORATORY SAFETY

SBBS and SPCS Teaching Laboratories

2024

Aims of this Session



Introduce you to the SBBS and SPCS teaching labs



What is a practical and what will you learn?



What is health & safety and why do we want you to think about it?



Be able to complete a health and safety quiz

Why is Health & Safety Important?



Protect yourself

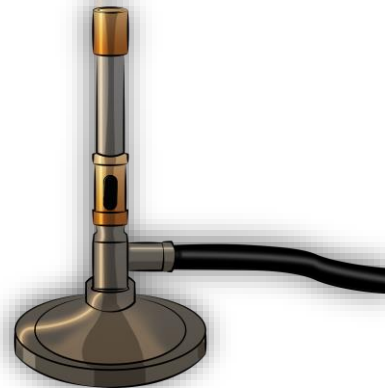
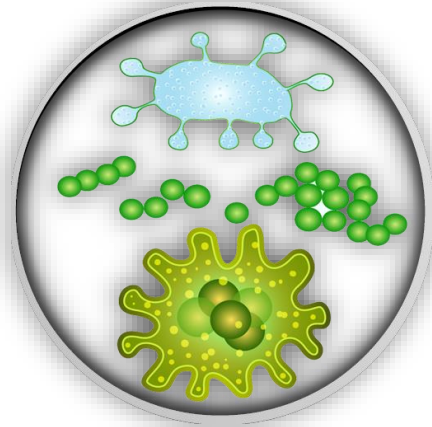
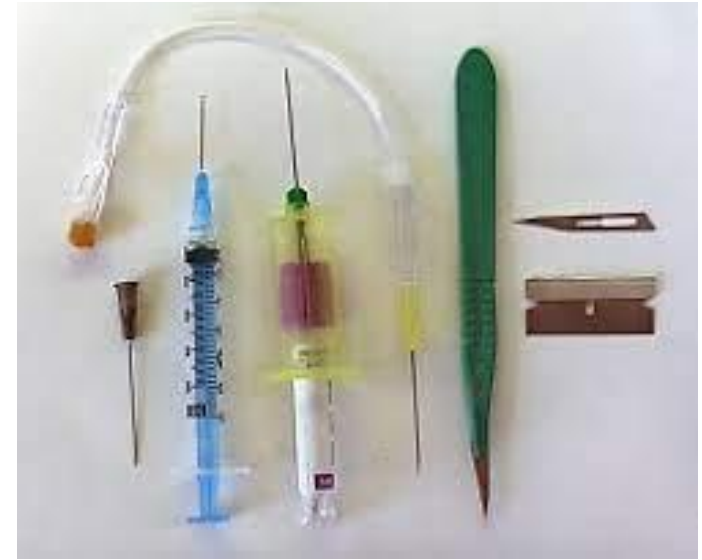


Protect each other



Protect the environment

What is dangerous in the lab?





No running
in the lab.



No eating in the lab,
including chewing-gum.



No drinking
in the lab.



No headphones
or any mobile
device use.



No mouth
pipetting.



Wear sensible clothes.
No bare legs, high heels
or open toed shoes.



Never Leave the
lab wearing
gloves.



Never fool
around or distract
your neighbour.



Never inhale
any chemicals.



No unauthorised
experiments.



Never remove
chemicals or
equipment
from the lab.



Never dispose of
chemicals or waste
inappropriately.

Failure to behave
appropriately
may result in you
being asked to
leave the lab

This will impact
your grades

COSHH

- You must read and understand these before you enter the lab
- They will be signed before you start by a demonstrator – they will ask you questions!
- COSHH forms may look different but they contain the same information

QUEEN MARY UNIVERSITY OF LONDON
Control of Substances Hazardous to Health Regulations 2002
Risk Assessment Form

Experiment Name: BIO198/BIO192-Practical 1-The accurate estimation of protein concentration

Chemicals in Use	Quantity (grams/ cm ³) (tick as appropriate)			
	<1	1-20	20-100	>100
1 Protein stock solution, BSA 50mg/ml		x		
2 Unknown sample - BSA		x		

Electrical Hazard(s): Yes Naked Flames Permitted: No (Delete as applicable)

Hazard(s) for Chemical in Use (circle as applicable)

1	Very Toxic	Toxic	Flammable	Corrosive	Harmful	Irritant	Highly Reactive
2	Very Toxic	Toxic	Flammable	Corrosive	Harmful	Irritant	Highly Reactive

Precautions Required for Each Chemical in Use <u> </u> (tick if necessary)										
Chemical No.	1	2	3	4	5	6	7	8	9	10
Fume Cupboard										
Gloves										
Safety Specs	x	x								
Lab coat	x	x								
Other Precautions (specify below)										

All the substances used during legislation.

I, have assessed the risk of using the chemicals as listed above and consider that they are safe to use in the experimer requirements as detailed above. laboratories.

Signed Student:.....

SUPERVISOR'S SIGNATURE

Other Precautions (specify below)

All the substances used during the practical are not classified as dangerous according to European Union legislation.

I, have assessed the risk of using the chemicals as listed above and consider that they are safe to use in the experiment provided that good laboratory practice is followed together with the safety requirements as detailed above. I understand that suitable eye protection must be worn at all times in the laboratories.

Signed Student:.....Date:.....

SUPERVISOR'S SIGNATURE

Signed:.....Date:.....

What are you using?



Protection

Chemical name	Quantity approximate	Physical form	Hazard Classification (Put an x in all applicable boxes)							Hazard codes and statements	Routes of exposure (Put an x in all applicable boxes)					Workplace exposure limit (WEL)	Initial risk evaluation			
			Corrosive	Irritant	Toxic	Health Hazard	Oxidising	Flammable	Explosive		Environmental	Inhalation	Ingestion	Skin contact	Injection		Eye splash	Risk score (1-25)	Risk level (L/M/H)	
Agarose	<5g	S																1	L	
Tris-Base	242g	S																1	L	
Acetic acid	57ml	L	x						x					x				TWA 10 ppm 25 mg/m3	12	M
EDTA Ethylenediaminetetraacetic acid	19g	S		x										x	x	x			4	L

Protecting Yourself



Ensure your lab coat is buttoned up



Goggles must be worn at all times



Gloves must be worn *according to the COSHH risk assessment*.
Glove boxes can be found at the end of each bench.

Protecting Yourself



Closed Toe Shoes



Legs Covered



Confine Loose Jewellery & Clothing

Laboratory Hygiene



NO eating or drinking in the lab



Tie back long hair



Store personal belongings in the designated area (lockers or cupboards)



Always remove all PPE and wash your hands before leaving the lab.

Safety blunders expose lab staff to potentially lethal diseases in UK

Exclusive: breaches investigated involve dengue virus, anthrax and other deadly pathogens

UCL fined £300,000 after student is left partially blinded in experiment gone wrong



Gruesome accident prompts call to find alternative to needles in chemistry labs

BY MARIA BURKE | 10 MARCH 2020



After a horrific accident involving the routine transfer of a solvent, a French researcher has been raising awareness about the danger of sharp needles in the lab. He is now calling for



SEFP Practical Teaching Laboratories



Teaching Laboratory 1.01, G. E. Fogg Building:

- Accommodates up to 100 students



Teaching Laboratory Ground floor, Joseph Priestley Building (JP):

- Accommodates up to 100 students



Teaching Laboratory 2.21, Joseph Priestley Building (JP):

- Accommodates up to 100 students

SBBS and SPCS Teaching Technical Team

**Dr Valentina
Rapisarda**

Teaching Technician Manager

Biology practicals

Fogg building

**Emma
Gammage**

Senior Teaching Technician

Biology practicals

JP building

Mark Hudson

Teaching Laboratory
Manager

Chemistry practicals

JP building

Supported by a team of technicians and PhD students as demonstrators during each practical

Lab Coats



Teaching Technician

- Light Blue



Academic

- Red



Demonstrator

- Dark Blue



Undergraduate Student

- White

Entry into the Teaching Labs

Doors to the labs open 15 minutes before the start of the practical. Make sure you arrive on time!

- Doors will close at the session start time

Enter the lab as soon as possible

For Fogg lab, 1.01: please enter the lab through the back doors only!

Padlocks for Lockers



You will be provided with a padlock

Only use it during the lab session

If locked overnight, the padlock will be removed

If you lose your padlock, you will need to buy your own.

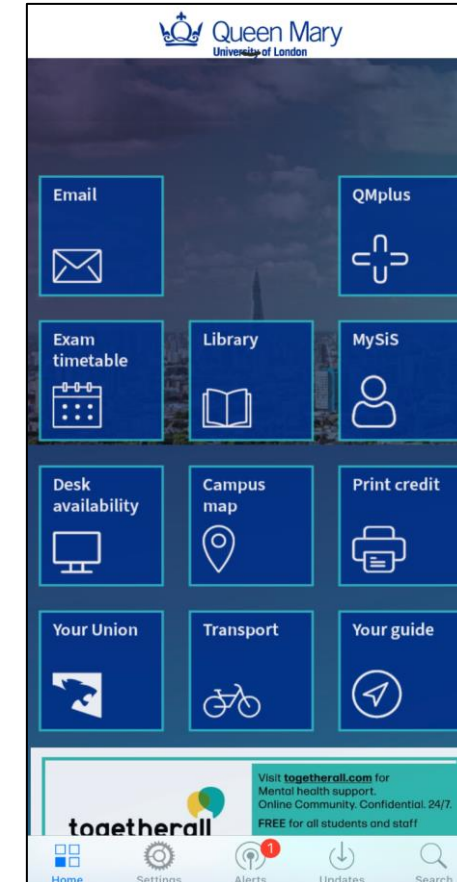
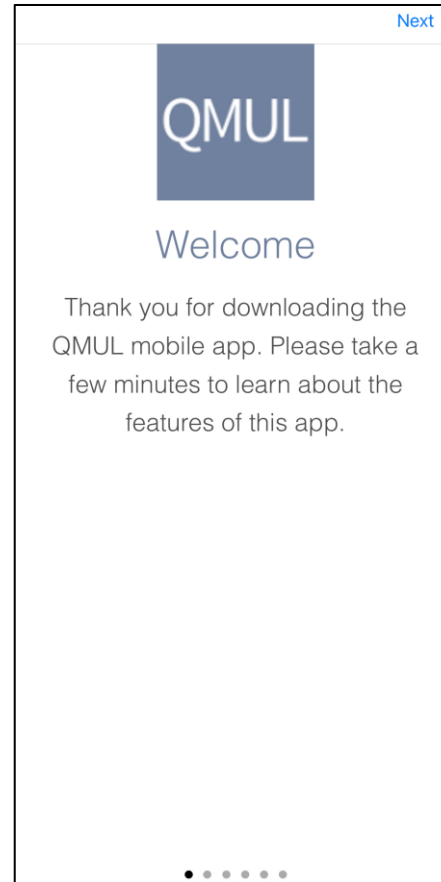
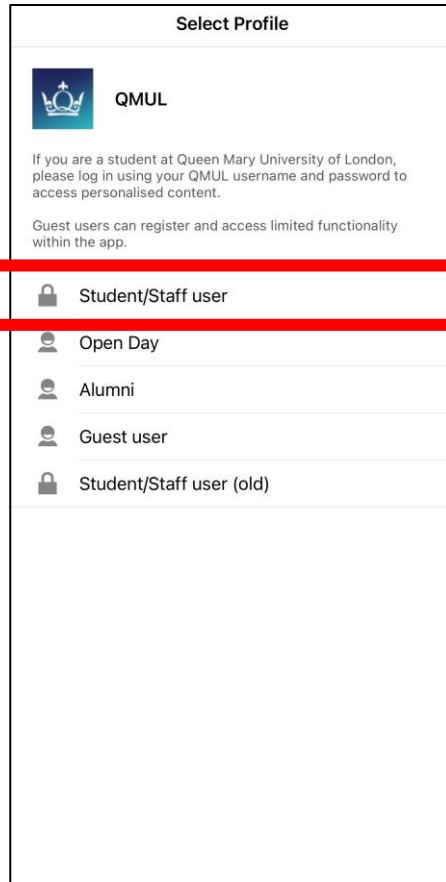
Entry into the Teaching Labs

Queen Mary's mobile app, available for Android & iOS devices

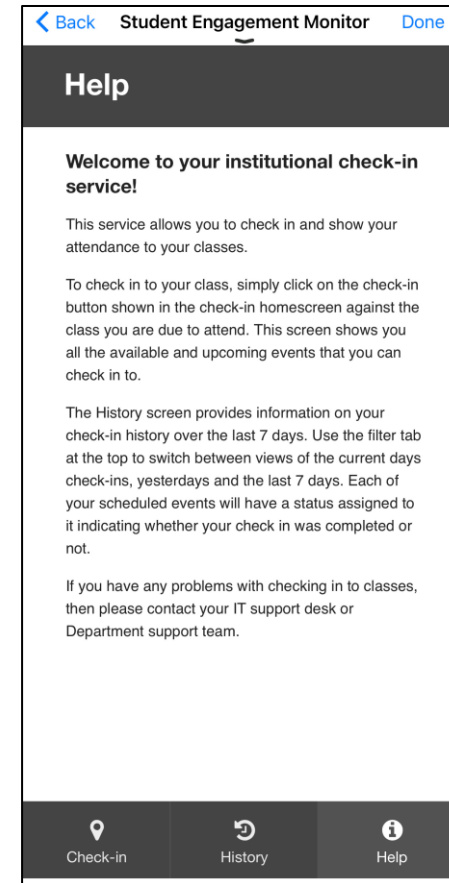
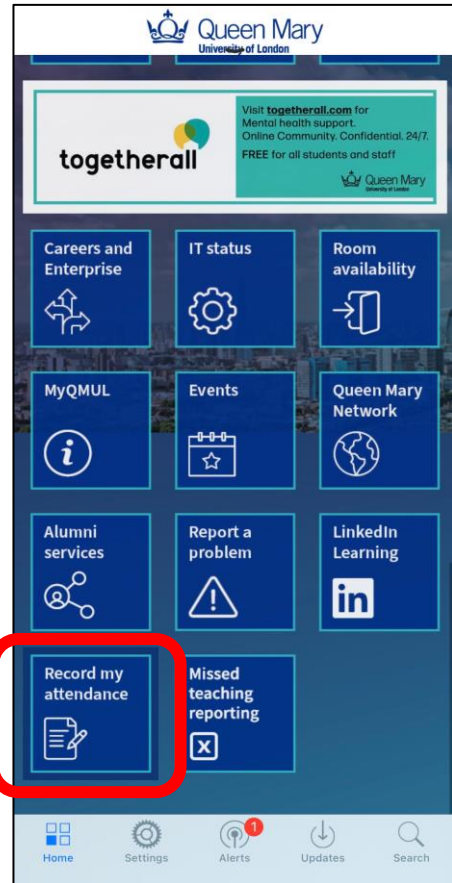
Search for 'QMUL' in your app store



Entry into the Teaching Labs



Entry into the Teaching Labs



What will you find on your bench or in your fume hood?

You may be assigned a numbered workstation

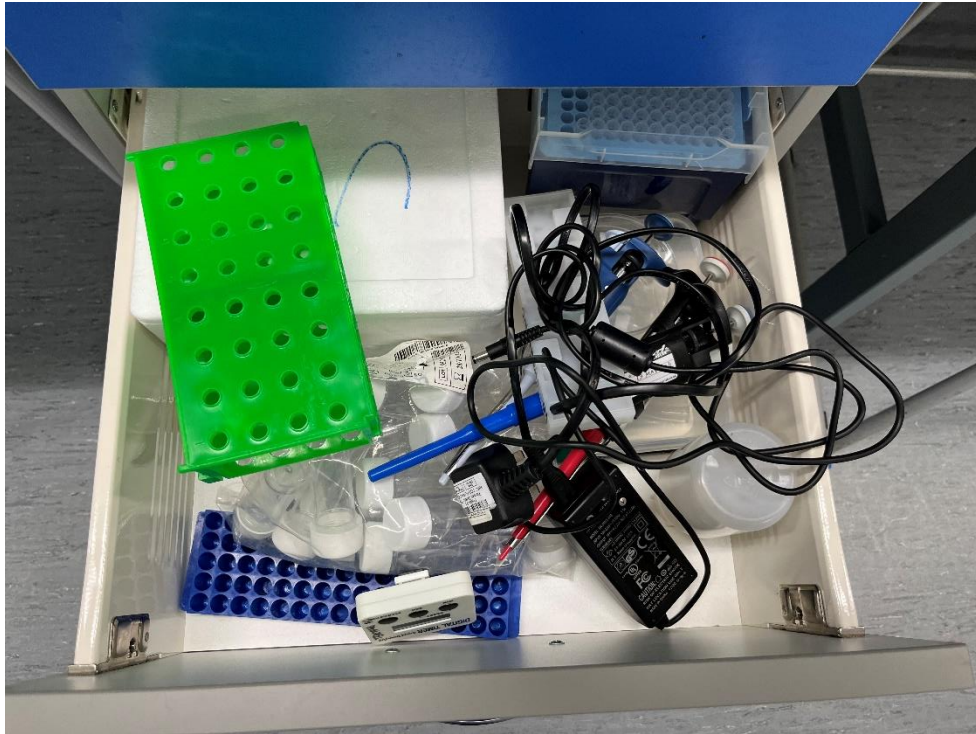
Take the equipment you need from your station drawer

- *Use the drawer numbered with your spill tray number*

Make sure to put everything back and leave your station and drawer as you found it



What you will find at your station



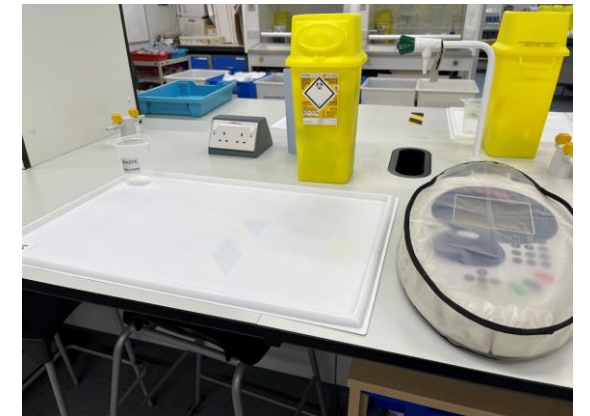
After you have finished

Leave the workstation as you found it

- *Use disinfecting wipes to clean your area*

Get a demonstrator to check your work

Return your PPE
Wash your hands before you leave



LEAF

The Laboratory Efficiency Assessment
Framework (LEAF)

Scheme to improve the sustainability and
efficiency of their laboratory areas.

Please support us with this.

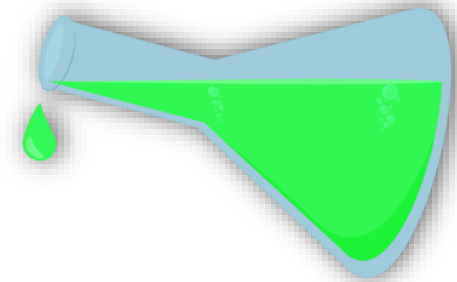


HOUSEKEEPING



**NEVER
RE-SHEATH
NEEDLES**

HOUSEKEEPING



Scenario 1

You are working in the lab, and you spill some water what do you do?

Scenario 2

You are working with a needle, and you accidentally stab yourself what do you do?

Scenario 3

You don't feel very well

You remember that you haven't eaten since yesterday

Scenario 4

The lab becomes very overwhelming, and you are feeling very anxious what do you do?

Scenario 5

You are late for your lab what do you do?

Fire Safety (Fogg)

- If the event of a fire alarm, evacuate via the nearest and safest exit.
- Do not use the lift.
- Go to the Fire assembly point: **Geography Square**



Fire Safety (Joseph Priestley)

- If the event of a fire alarm, evacuate via the nearest and safest exit.
- Do not use the lift.
- Go to the Fire assembly point:
Library Square



During a lab session, I need to use the toilet, what do I do?

Please remove all your PPE and wash your hands before leaving the lab

Nearest Female Toilets:

- Fogg – G Floor & 1st Floor
- JP – G Floor & 2nd Floor

Nearest Male Toilets:

- Fogg – G Floor
- JP – G Floor & 2nd Floor

First Aid



If you are feeling unwell, please inform staff ASAP



In case of emergency, call 3333 (or 999)



Or +44 (0)20 7882 3333 on mobile



All teaching labs have First Aid Kits and Eye Wash Bottles



Health & Safety Induction Quiz

Before you attend your first practical session you must pass the online safety quiz.

The pass mark is 80%.

You have a maximum of 3 attempts.

Your highest grade will be recorded.

After 3 failed attempts, you must contact the teaching technician manager

QUIZ TIME!



All Modules Help ▾



Welcome to QMPLUS.

The Online Learning Environment for Queen Mary University of London.

Log in →