

# Microbiology

Lab 1+2



# Safety

1. All materials and clothes other than those needed for the laboratory are to be kept away from the work area.



2. A lab coat or other protective clothing must be worn during lab. The lab clothing is not to be worn outside of the laboratory.



3. Clean the lab table before and after lab with the disinfectant solution provided.



4. Wash hands before leaving lab.



5. Any item contaminated with **bacteria or body fluids** must be disposed of properly. **Disposable items** are to be placed in the BIOHAZARD container. **Reusable items** are to be placed in the designated area for autoclaving prior to cleaning. **Sharps** are to be disposed of in the appropriate container.



6. Reusable items should have all tape and marks removed by the student before being autoclaved.

7. Because organisms used in this class are potentially pathogenic, aseptic technique must be observed at all times. NO eating, drinking, application of cosmetics or smoking is allowed. Mouth pipetting is not allowed.



8. Cuts and scratches must be covered with Band-Aids. Disposable gloves will be provided on request.



9. Long hair should be tied back while in lab.

### Lab Safety Rules

6-Long hair must be tied back or covered to minimize fire hazard or contamination of experiments.



10. All accidents, cuts, and any damaged glassware or equipment should be reported to the lab instructor immediately.

11. **Sterilization techniques** will involve the use of open flames that are fire and burn hazards. Keep all combustibles away from the flames. **Do not** leave inoculating loops or needles propped in the flame



12. Microscopes and other instruments are to be cared for as directed by the instructor.



13. It is the responsibility of the student to know the location and use of all safety equipment in the lab (eyewash, fire extinguisher, etc.)



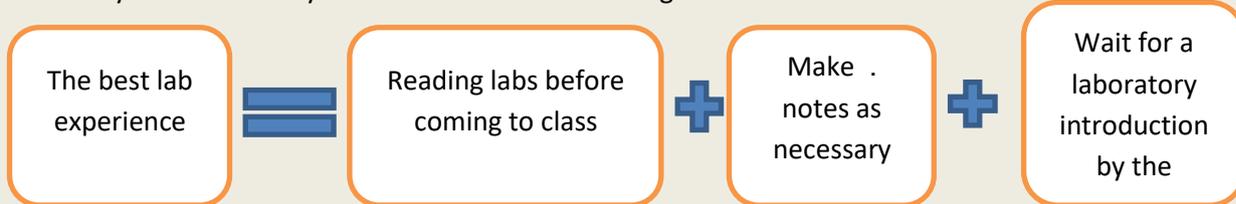
14. **Cultures** may not be removed from the lab. Visitors are not allowed in the lab.



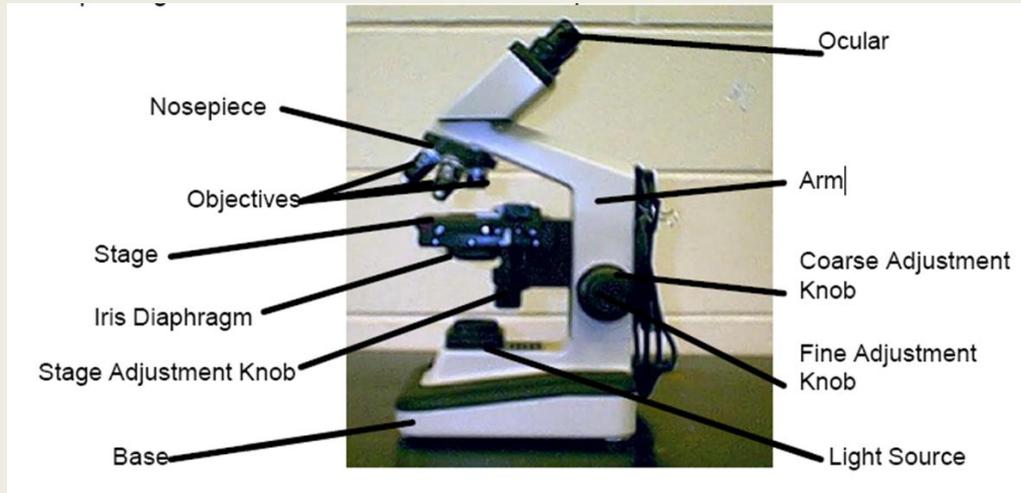
15. Doors and windows are to be kept closed at all times.



16. For the best lab experience, read labs before coming to class. Make notes as necessary. Wait for a laboratory introduction by the instructor before starting work.



# Microscope



## ----- Hand washing -----

- Types of bacteria on hands
- Normal flora
- Transient bacteria

من الأمثلة على البكتيريا الصديقة التي تعيش على الجلد:

Staphylococcus aureus

## Microbial spread and transmission

1

Touch your eyes, nose, and mouth with unwashed hands



2

Prepare or eat food and drinks with unwashed hands



3

Touch a contaminated surface or objects



4

Blow your nose, cough, or sneeze into hands and then touch nose eyes, or other people's hands or common objects

- Washing hands can keep you healthy and prevent the spread of many infections such as respiratory and diarrheal infections from one person to the next.



## Hand washing- When

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Socially: for example

If your hands are obviously dirty

1

Before eating or handling food

2

After using the toilet

3

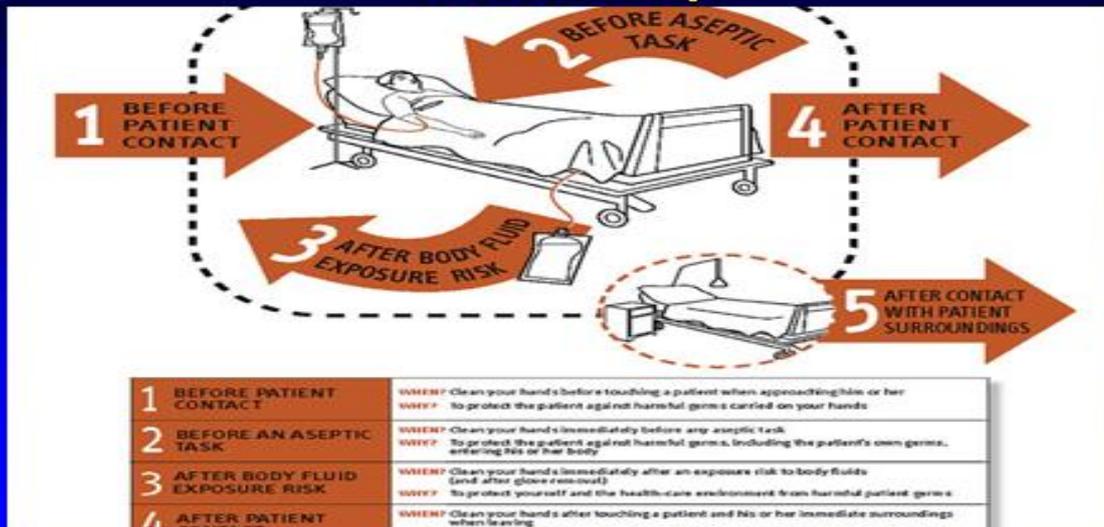
After changing nappies

4

If you are a patient / visitor and have diarrhoea and/or vomiting, coughs or influenza (flu)

5

## Medically



غسلهم جيداً قبل و فتح الكمامة

# Hand washing - How

1

A good hand washing technique involves wetting the hands under running water before applying liquid soap.

2

The hands should be rubbed together for 15 – 20 seconds so that the soapy water comes into contact with all surfaces of each hand, (See figure).  
فرسك لمدة 15-20 ثانية

3

It is important to wash under any rings and it is advisable to remove wristwatches before washing.  
في حال كنت لابس ساعة أو سوار

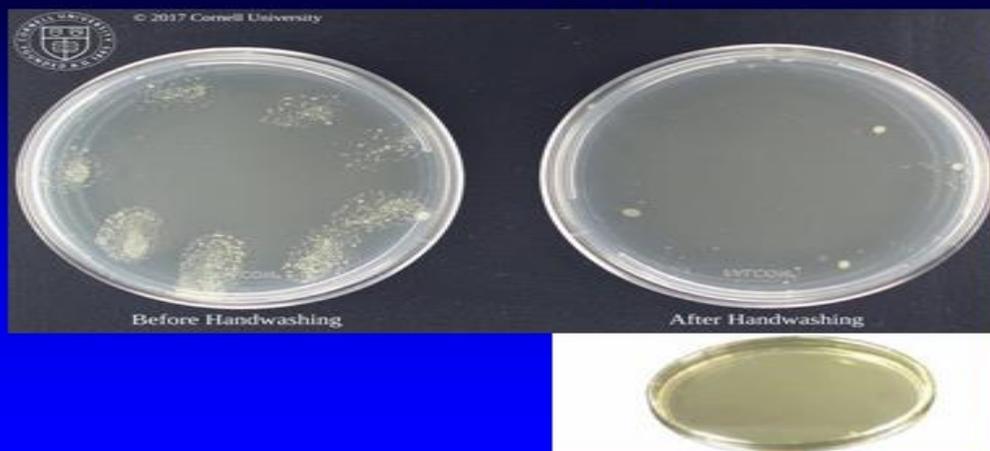
4

Hands should be rinsed thoroughly and then dried with paper towels.

## Hand washing - steps



## practical



Before Handwashing

After Handwashing