### **Laboratory of Biotechnology Department**

In biotechnology department of education collage of Qurna have different laboratory for undergraduate and graduate studies.

#### 1- Micro lab

In this lab, we teach the undergraduate students how growth and sprat microorganisms. Also, we explain all the diseases that will happen by bacteria or viruses. We have different tests and experiments in the lab to increase students' knowledge like antibiotics and antitoxic.

### **Averrable equipment**

Centrifuge, Shaker, Autoclave, Incubator, Blinder, Sensitive balance, Oven, Microscope Refrigerator, and pH meter.

#### 2- Cell lab

### The goal of this lab is to introduce the student to:

- **1-** Study the cellular structures of animal tissues and the functions of cells and their organelles through sections of studied tissues.
- 2- Study vertebrate and invertebrate animals in terms of structure, functions, ways of coexistence, and their relationship with each other.
- 3- Making tissue sections of models of different animal tissues and identifying the mechanism of making slides the permanent glass.

### Averrable equipment

Microscope, Dissection microscope, Oven, and Microtome

# 4- Biochemistry lab

In this lab, student will learn what is protein, lipides, carbohydrate, and enzyme. We have experiments that explain the different between the sugars and lipids. Also, explain the different between amino acids.

### **Averrable equipment**

Water bath, pH meter, and Spectro photo meter.

#### 5- Insect lab

The lab identifies the types and varieties of insects in the environment. Also, classify the insect and know their importance in biology and within the natural order of the environment.

# 6- Environment and Pollution Laboratory

This lab studies the environmental sciences and their applications. Also, how we use it in society for practical purposes. Increase the knowledge of students about pollution of the environment and how we can control that.

#### 7- Graduate lab

This lab is specifically for graduate students, and it has all the equipment that will help students to complete their experiments. The biotechnology department prepares all things for students.

# Averrable equipment

Deep frieze, electrophoresis, water bath, Shaker, Autoclave, Incubator, and microscope.

#### 8- Center lab.

This lab is new and the goal for this lab help our college and other college. In this lab will analysis all organic contamination and oil contamination. Also, we can determents aromatic oils, natural and synthetic drug.

# **Averrable equipment**

GC-MS/MS (7010B Triple Quadrupole) and JASCO Ftir Spectrometer (model 4600).









Centrifuge

Sensitive scale











Spectrophoto meter



GC-MS/MS



Spectrometer