

### **Report on**

## Visit of the Chemistry Program Department to the headquarters of the field training bodies

The faculty members of the Department of Chemistry have made a field visit to the field training bodies, and the students are expected to be trained in practice, including:

# 1- Al-Jawf Health Water Factory Company (Helwa) in Al-Jouf Region

As it contains many units for desalination, purification and filling of drinking water, in addition to the presence of chemical laboratories to measure the proportion of salts, heavy elements and others in water.





#### 2- Forensic evidence in Al-Jawf region

Which has a vital role in the detection of criminal incidents, and the administration is equipped with many modern scientific devices, which is one of the modern scientific methods used in identifying crimes and accidents, and that all laboratories in the administration rely heavily on chemists. This is followed by a tour of the various departments of the administration, accompanied by a detailed explanation of the role played by each laboratory, the types of equipment attached to it, and how to use them.





### **3-** Food Safety Laboratory in Al-Jawf Region

it plays in detecting food fraud and how to prepare reports on it

The different sections of the laboratory, where a number of chemists explained in detail what each section does.1. The first section: regarding the preparation of samples by extraction with organic solvents, and then analyzing them using a HPLC device to know the number and types of components contained in them.

.2. The second section has a GC-MS device that performs chemical analyzes of olive oil to detect its safety for use. As well as the Atomic Absorption device, which is used to detect heavy elements likely to be present in the oil, such as cadmium and lead.

3. The third section, in which food contamination with pathogenic microbes is detected, especially bacteria and fungi that are likely to be present in food.

4. As for the fourth and final section, drinking water is analyzed to determine its validity.





## 4- King Abdulaziz Specialist Hospital in Al-Jouf

As the hospital contains many chemical laboratories that perform chemical analysis of blood, urine, hormones and other samples



## 5- Central Laboratory at Al-Jouf University

Which includes many and many devices that perform most of the chemical analyzes of all solid, liquid and gas samples

