

# **Environmental pollution**

**Fourth year**

**Semester 1**

**Credit Hour: 2 hrs.**

**Code: CHM 479**

**Type:CR**

1-Air pollution

- \* Definition.
- \* Atmospheric chemistry (cycles and residence time).
- \*Types and sources of air pollution.
  - Particulates (soot, smoke, ash, dust, and other solids).
  - Gases (carbon, nitrogen, sulfur, ozone, and CFCs).
- \* Other pollutants (mercury, lead, cadmium, zinc and arsenic).
- \* Acid rain.

2- Water pollution

- \* General principles.
- \* Geochemical cycles.
- \* Residence time.
- \* Point and non point pollution sources.
- \* Industrial pollution.
- \* Inorganic pollutants.
- \* Organic compounds.
- \* Thermal pollution.
- \* Eutrophication.
- \* Ground water pollution.

3- Agricultural pollution

- \* Fertilizers.
- \* Sediment pollution.
- \* Herbicides and pesticides.
- \* Dredging.

4- Indoor pollution.

- \* The causes of recent indoor pollution.
- \*The hazards.
- \*The risks of Radon.

5- The global warming (climate change).

6- The treatments and the way to minimizing pollution:

- \*Incineration.
- \* Deep well disposal.
- \* Municipal waste disposal.
- \* Open dumps. And sanitary land fills.