

**CHM1311 Environmental chemistry**

[30h] 3 credits

**Teacher(s):** Michel Devillers (coord.), Istvan Marko  
**Language:** French  
**Level:** First cycle

**Aims**

The objective of the course is to give future professionals in chemistry a global view of the environmental impact of chemistry, meaning its products and processes. The purpose is not to be exhaustive on the subject but to strengthen the awareness of the chemical origin of certain environmental problems, in the context of a rigorous scientific reasoning, based on concepts from the general, inorganic and organic chemistry courses, given in first and second year. The course will also introduce to the main juridical aspects involved in environmental protection in its different components : air, water, soil, waste handling.

**Main themes**

The course will deal with the environmental aspects linked to the air, water and soil pollution, whether of inorganic or organic nature. It aims at describing the main sources of pollution in our environment emphasizing the physico-chemical understanding (structure, stability, reactivity) and presenting the alternative strategies allowing to avoid or diminish the effects. The course will cover namely the following points :

- concerning air : greenhouse effect gases, ozone depletion, nitrogen oxides, organic volatile components, aerosols ;
- concerning water and soil : drinking water, nitrates, chlorine and organochlorine compounds, heavy metals.