

**SC****CHIM2162 Méthodes physiques de la chimie**

[76h] 4.5 credits

**Teacher(s):** Johan Hofkens, Daniel Peeters, Jacques Vandooren  
**Language:** french  
**Level:** 2nd cycle course

**Aims**

The objectives of the course will include and analyse in a critical way the acquisitions and treatments of experimental results necessary to the study of a chemical problem. The emphasis will be particularly put on the polyvalent character of the techniques and methods used.

**Main themes**

The course contains a practical and theoretical formation to the experimental methods of physical chemistry. The aspects treated are mainly:

- thermodynamics in gaseous and condensed conditions (thermo chemistry, phase balance, chemical balance, solution properties, ...)
- the kinetics of chemical reactions (determination of reaction orders, speed constants, ...)
- the properties of transports (gaseous kinetic theories, viscosity of gases and liquids, electric field effects, ...)
- Electrochemistry (conductivity, ...)
- Molecular properties (spectroscopy: IR, UV, ..., dielectric properties, ...).

**Other credits in programs**

<b>CHIM21</b>	Première licence en sciences chimiques	(5 credits)	Mandatory
---------------	--	-------------	-----------