

[22.5h+0h exercises] 2.5 credits

This course is taught in the 2nd semester

**Teacher(s):** Robert Crichton, Pierre De Meyts, Patrice Soumillion  
**Language:** french  
**Level:** 2nd cycle course

**Aims**

The second part will take care in more depth of the methods of investigation, covering the regulation of enzymatic activity and applications of enzymes in different domains.

**Main themes**

Second Part: 1. Methods of investigation: a. kinetic methods (rapid kinetics, perturbations and relaxation). b. chemical modification and analysis of the active site. c. mutagenesis techniques and protein engineering. 2. Allosteric regulation: a. protein-ligand interactions (thermodynamic aspects) b. models describing allosteric regulation c. case studies. 3. Enzymatic catalysis and its applications: a. stabilization and immobilization of enzymes b. industrial applications of enzymes c. applications of enzymes in clinical biology d. applications of enzymes in organic synthesis. 4. Multienzyme complexes.

**Other credits in programs**

**CHIM22** Deuxième licence en sciences chimiques (2.5 credits)