

Chemistry of biomolecules

 **ECTS**
3 crédits

 **Composante**
UFR Chimie

 **Volume horaire**
24h

 **Période de l'année**
Semestre 1

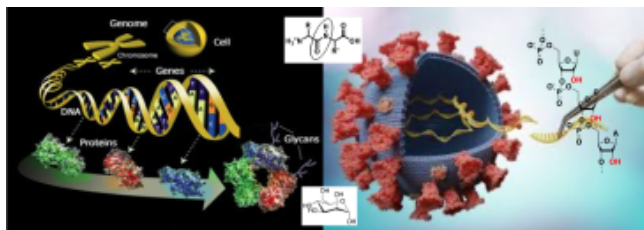
En bref

- **Langue(s) d'enseignement:** Anglais
- **Forme d'enseignement :** Lecture and exercise
- **Ouvert aux étudiants en échange:** Non

Présentation

DESCRIPTION

Biomolecules including proteins, carbohydrates, lipids, and nucleic acids are an important element of living organisms. Currently, these molecules offer tremendous potential for biotechnology, new therapeutic strategies, or synthetic biology. Many pharmaceutical companies and academic groups are entering or investing in this field, and the chemists have already played a major role in all of these developments.



OBJECTIFS

The aim of this course is to address the specific problems for the synthesis of biomolecules (peptides, sugars, and nucleic

acids) based on general notions of organic chemistry. We hope that this course will inspire future chemists to branch out on this topical field of designing new biomolecules for potent applications.

Sugars: Structural aspects (conformation,), monosaccharide chemistry (protective groups), formation of the O-glycosidic bonds (methods of activation, control of stereochemistry, mechanistic aspects).

Peptides: Formation of peptide bonds, strategy of synthesis, synthesis on solid support.

Nucleic acids: Protective groups, Phosphodiester bond formation, solid support synthesis

HEURES D'ENSEIGNEMENT

Chemistry of biomolecules	Cours Magistral	14h
Chemistry of biomolecules	Travaux Dirigés	10h

PRÉ-REQUIS NÉCESSAIRES

Basis in organic chemistry and molecular biochemistry

Pour en savoir plus, rendez-vous sur > u-paris.fr/choisir-sa-formation