CES7AF - CES9AC MOLECULAR BIOLOGY and APPLICATIONS

CES7AF - CES9AC Molecular Biology and Applications	ECTS Credits: 4 Duration: 36 hours	Semester: S7

Person(s) in charge:

Cathy HIRSINGER, cathy.hirsinger@univ-lorraine.fr

Keywords:

Molecular biology, GMOs, molecular evolution

Prerequisites: Recommended level in biology: GCSE in Science.

Program and contents:

Objectives

The aim of this course is to make students aware of news-related subjects concerning molecular biology as well as biology in general. Classes are focused on molecular biology, but explain the origin of life, describe the cell before describing genes and their regulation in more details. Those notions are then used ti explain what GMO's are and how they can be manufactured.

Content - Program
The program is divided into 2 parts, classes (including tutorials and practical work on computers) and presentations.

Classes

- origin of Life. Cells and constituants
- Macromolecules of life
- DNA and its replication
- from DNA to proteins
- genic expression regulation
- biomolecules analysis techniques
- recombinant DNA, clonings and GMOs

Presentations
The presentations and debates that follow will be carried out and led by the students. The subjects are inspired from current actual events and debates in biology.

Assessment methods:

Students are evaluated in two ways.

- During the semester they will give a presentation in groups of 2 or 3 on a theme that they have chosen, with the approval of their teacher.

- A written test at the end of the course.

Evaluation:

☑ Written test	☐ Continuous Control	☑ Oral report	☐ Project	☐ Written report