

# Génétique

**Lecturer**

Bruno ANDRE (Coordinator)

**Course mnemonic**

BIOL-F302

**ECTS credits**

5 credits

**Language(s) of instruction**

French

**Course period**

First term

## Course content

Structure of nucleic acids - Organisation and evolution of genes and genomes - Mobile genetic elements (plasmids, viruses, transposons) - The question of the origins of life - Mutations, DNA repair and DNA recombination - Principles of meiotic gene transmission - Principles of genetic mapping and their applications in association studies - Principles of genetic dissection applied to model organisms (yeast, nematod, fish) and gene cloning techniques

## Objectives (and/or specific learning outcomes)

To transmit the main concepts of modern genetics and to allow the student to understand the current goals, progress, and applications of this main discipline of biology

## Pre-requisites and co-requisites

### Pre-requisites courses

BIOL-F204 | Microbiologie moléculaire et cellulaire | 5 crédits and  
BIOL-F211 | Travaux pratiques de biochimie | 5 crédits

## Co-requisites courses

BIOL-F208 | Biochimie et physiologie de la cellule | 5 crédits

## Teaching method and learning activities

3 ECTS (lectures : 2, exercices: 1, practical work: 0, personal work: 0)

## References, bibliography and recommended reading

Slides presented during lectures are provided by the teacher via internet - Key references of articles in journals like " Trends in.. ", " Nature Reviews in.. ", " Annual Reviews in .. ", .. also transmitted by the teacher - Books: "Molecular Biology of the Gene" - J. Watson, T. Baker, S. Bell., A. Gann, M. Levine, R. Losick (Pearson Benjamin Cummings, CSHL, 5th edition, 2004); "iGenetics, a molecular approach" - P.J. Russel (Pearson Benjamin Cummings, 2006).

## Other information

### Contact(s)

Email: bran@ulb.ac.be Office: AE4.110 (Campus of Gosselies).  
Postal address: 300

## Evaluation method(s)

Other

## Programmes

Programmes proposing this course at the faculty of Sciences

BA-BIOL | Bachelor in Biology | option Bruxelles/unit 3