



<b>COURSE DEFINITION</b>	<b>Year: 1</b> <b>code : A1- 12</b>
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**Head of department :**  
**M. JL.Darques**  
**Teacher(s) :**  
M. G.Fumelli

**ECTS : 3**  
  
**Hours credit: 30**  
  
**Distribution**  
**number CM : 30**  
**number TP :**  
**number TD :**

**Type :**  
CM  
  
**Evaluation:**  
MCQ  
SEMESTER  
  
**Language : French**  
**Documentation: YES**

**Courses objectives :**  
To provide students with a good understanding of the organization and overall functioning of the cell

**Bibliography :**  
Alberts et al. (Ed. Flammarion); Lodish et al. (Ed. DeBoeck); Campbell (Ed. DeBoeck)

**Content :**

- 1/ The cell and its environment
  - Structure and function of the plasma membrane
  - Recognition and cell adhesion
  - Exchange of matter and information through the plasma membrane
- 2/ Cytoskeleton
- 3/ Mitochondrion
- 4/ Cell divisions: mitosis and meiosis
- 5/ The cell nucleus and Genomic Expression
  - The flow of information within the cell from DNA
  - From DNA to RNA, the early stages of gene expression
  - Translation of messengers into polypeptides
- 6/ Structure of genes among Eukaryotes
- 7/ Genetic mutations
- 8/ Intracellular protein traffic