

# Public Databases in Health and Life Sciences

*“the potential to translate big data into big discovery”*



**Bachelor's Degree in Bioinformatics**



# Public Databases in Health and Life Sciences

**Moodle course <https://aula.esci.upf.edu/course/>**

Oscar Conchillo Solé  
Irepan Salvador

[oscar.conchillo@prof.esci.upf.edu](mailto:oscar.conchillo@prof.esci.upf.edu)  
[irepan.salvador@prof.esci.upf.edu](mailto:irepan.salvador@prof.esci.upf.edu)

[ocs@bioinf.uab.es](mailto:ocs@bioinf.uab.es)  
[irepan\\_salvador@hotmail.com](mailto:irepan_salvador@hotmail.com)

## Presentation of the cours

- Objectives
- Teaching plan
  - Content
  - Assessment criteria

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# Public Databases in Health and Life Sciences

## Objectives

- To know what a biological database is
- To understand why databases are useful for dealing with large amounts of biological data
- To introduce to some of the major online public biological databases and their features
- To gain experience in extracting data from online biological databases
- To know to what extent biological databases are integrated
- To discuss the current challenges of biological databases



# Public Databases in Health and Life Sciences

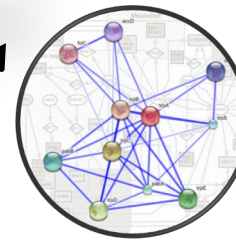
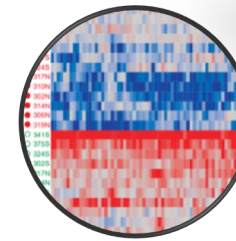
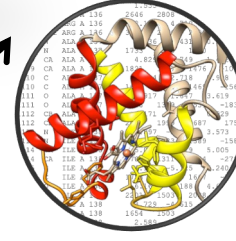
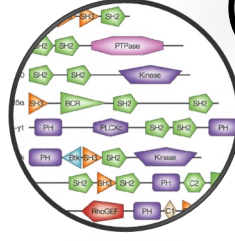
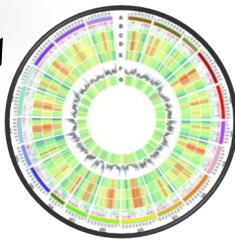
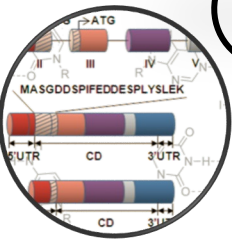
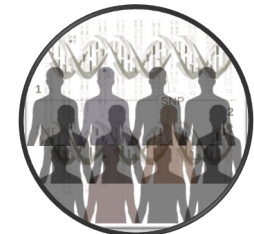
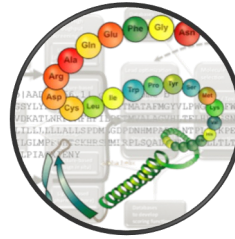
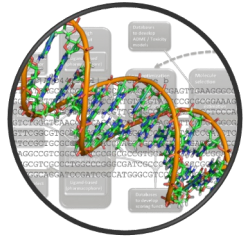
## Course content

### Flow of Genetic Information and the Central Dogma

#### Nucleotide sequences

#### Protein sequences

#### Phenotype Genetic variations



Genes

Genomes

Function

Structure

Expression

Pathways



# Public Databases in Health and Life Sciences

## Assessment

- **Final exam.+**

at the computer lab  
integrative problems  
mandatory

**60%**

- **End-of-unit tests. \***

online tests  
continuous assessment

**30%**

- **Active participation in class. \***

group activities during theoretical sessions  
participation in the practical sessions

**10%**

\* In order to get access to the final exam, the student needs to have participated in at least 50% of the continuous assessment activities (active participation in class and end-of-unit tests).

+ The final exam requires a minimum grade of 4 points (out of 10).

**In order to successfully complete this course, the student must get a minimum final grade of 5 points (out of 10).**