Bioinformatics
LAB 1

Prof.ssa Elisa Ficarra
Prof.ssa Santa Di Cataldo
Eng. Marta Lovino
Eng. Francesco Ponzio
Eng. Emanuele Parisi

Politecnico di Torino
DAUIN
Dept. of Control and Computer Engineering

Organization

Schedule & Contacts

LAB 1

Thursday, May 14th 11.30 – 13.00
Thursday, May 21st 11.30 – 13.00

The **next LABS** will be held regularly each week both

Wednesday and Thursday 11.30-13.00

Please check the **Teaching Portal** and the **Telegram group** to be updated.

CONTACT FOR LABS on GENOMICS

For any problems concerning the LABs, feel free to contact **Eng. Marta Lovino** during LABS class or by e-mail (**marta.lovino@polito.it**). Kindly indicate as the subject of the email “BIOINFO LABs“ and cc other potentially interested people.

How to work

Start programming right now!

- Coronavirus has changed our habits, so it is not possible to physically work in groups.
- Use Telegram group to ask for questions and to interact to each other!

Again,

Start programming right now!

LAB solutions will **NOT** be published

Setup your environment

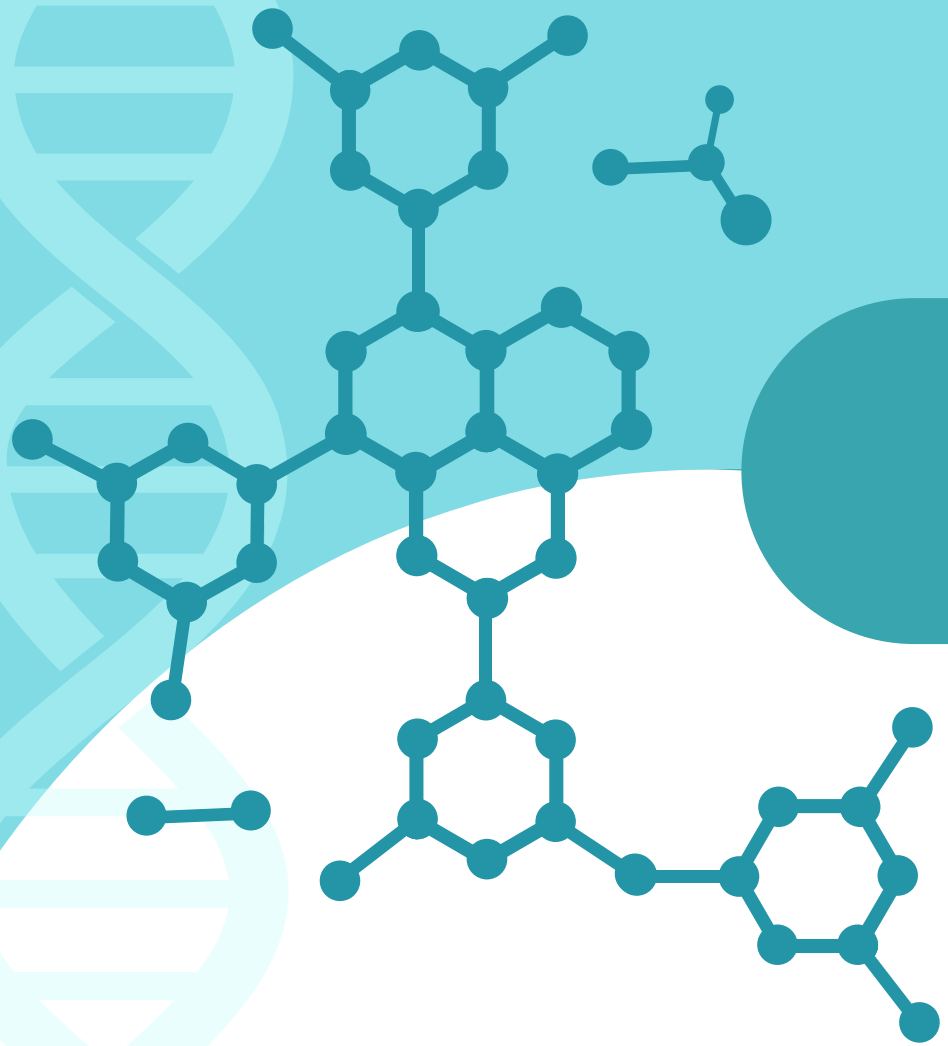
We strongly recommend **using Pycharm as Python IDE** and **a terminal with Anaconda distribution** installed.

Follow **the instructions in the "Setup for labs" file** uploaded on the teaching portal.

Feel free to ask us for problems in the installation process, we can provide you alternative solutions if you find issues with the suggested tools.

Structure of each LAB

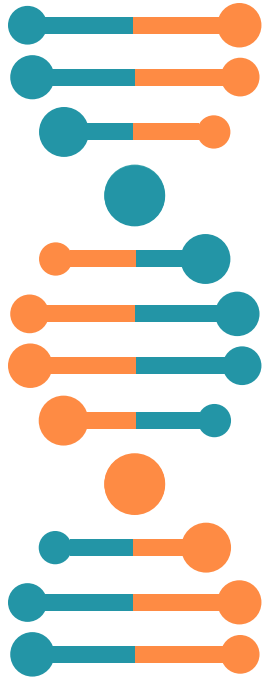
1. **Definition of the LAB goals**
2. **LAB Tips.** Suggestions and quick tutorials on LAB goals
3. **LAB assignments.** Your turn to program!
4. **Question & Answer session.** I am online to assist you.

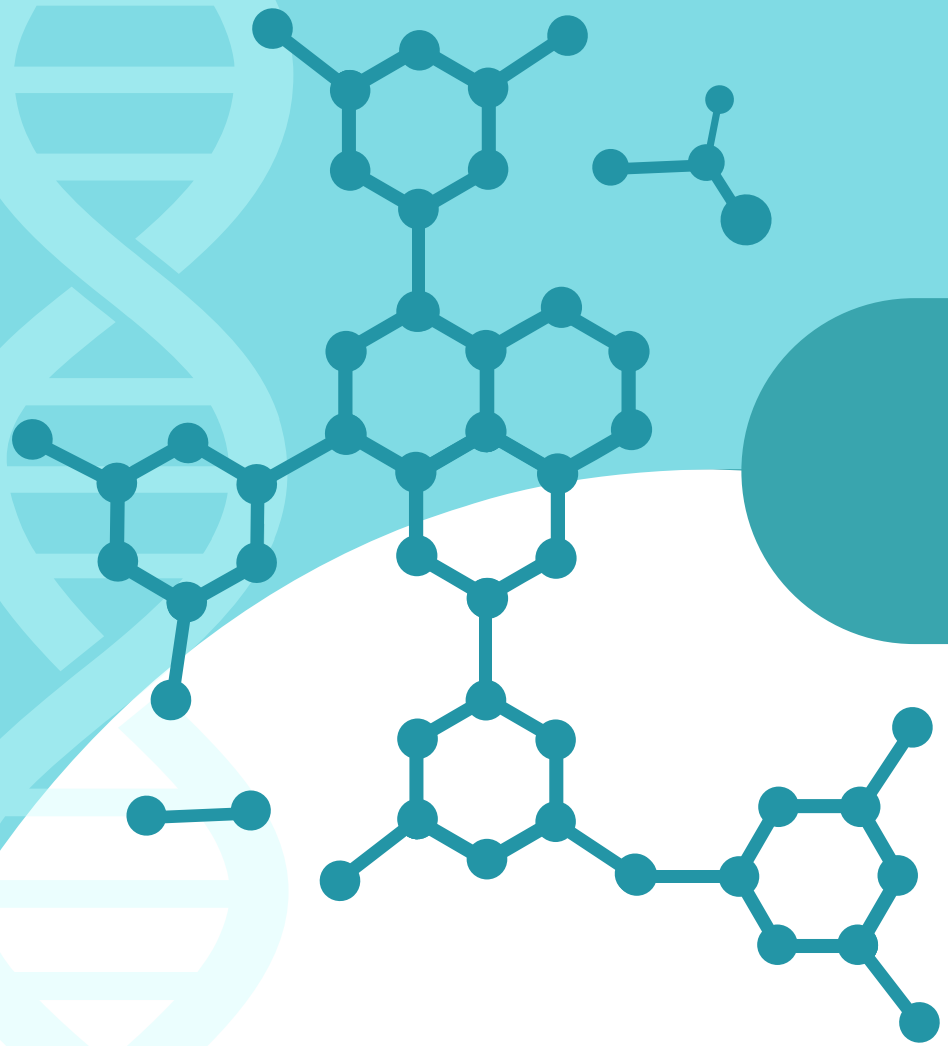


LAB 1 - Goals

GOALS

- Run a Python program
- Pass arguments from command line
- Put comments in your code
- File Handling
- Random library
- Useful methods on strings
- Lists and dictionaries
- For and while loops

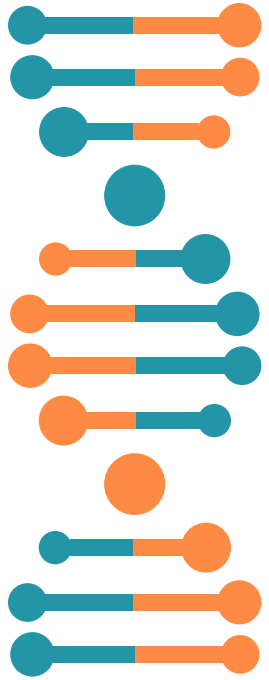




LAB 1 - Assignments

LAB1 - Assignments

- Random FASTA file generator
- Statistic extraction
- FASTA files comparison
- Consensus regions



Questions?

Remember:
no question is
stupid

LET'S START PROGRAMMING!!