Structural Biology

1. Grades
    1. Project
    2. Multiple choice
    3. Practical exam
    4. Assay
2. Themes
    1. Principles of protein structure (BE.2)
    2. Conformational space (BE.3)
    3. X-ray & NMR (BE.4)
    4. Comparative modeling (BE.5)
    5. Protein structure prediction (BE.6)
    6. Protein networks (BE.7)
3. Bibliography

1. Grades
   5/10 is required to pass in all parts (1,2,3 & 4)

   1. Project (3)
      Features:
      - Presentation in Power-Point
      - Images are home-built using the programs of the course
      - Show good knowledge on physic-chemical properties of Aa.
      - Select among several families
      - Groups of 3
      - Important to show the relationship of sequence/function/structure
   2. Multiple choice (1.5)
   3. Practical exam (3)
   4. Assay (2.5)

2. Themes
   1. Principles of protein structure (BE.2) Baldo Oliva
   2. Conformational space (BE.3) Jana Selent
   3. X-ray & NMR (BE.4) (Baldo Oliva)
   4. Comparative modeling (BE.5) (Baldo Oliva)
   5. Protein structure prediction (BE.6) (Baldo Oliva)
   6. Protein networks (BE.7) (Baldo Oliva)

3. Bibliography

Principles of protein structure

Introduction to Protein Structure (Branden & Tooze)

Protein Geometry, classification, topology and symmetry (Taylor)

Conformational space

Molecular Biophysics (Daune)

Protein physics (Finkelstein)

Biophysical Chemistry (Cantor & Shimmel) chapter 5

X-ray & NMR

Practical protein crystallography (McRee)

Protein NMR spectroscopy (Cavanagh)

Biophysical Chemistry (Cantor & Shimmel) chapter 13

Comparative modeling

Protein structure prediction

Structural Bioinformatics (Hoboken)

Protein Bioinformatics (Eidhammer)

Protein networks

Computational protein-protein interactions (Nussinov)

4. Virtual Desk

VDI Windows

Use the link https://myvdi.upf.edu, *enter with your "U" personal ID*

The work is lost after closing the session (i.e. keep your data in Google Drive or similar repositories before closing the session)

If the system crashes or the connection is broken, your data and work are still in memory for 10 minutes, waiting for your re-entry.

If the VDI has no activity for more than 30' the desk is closed automatically

The first time you use VDI you have to install Citrix Receiver *https://www.citrix.com/es-es/products/receiver.html*
This is also accessible in settings of myvdi.upf.edu