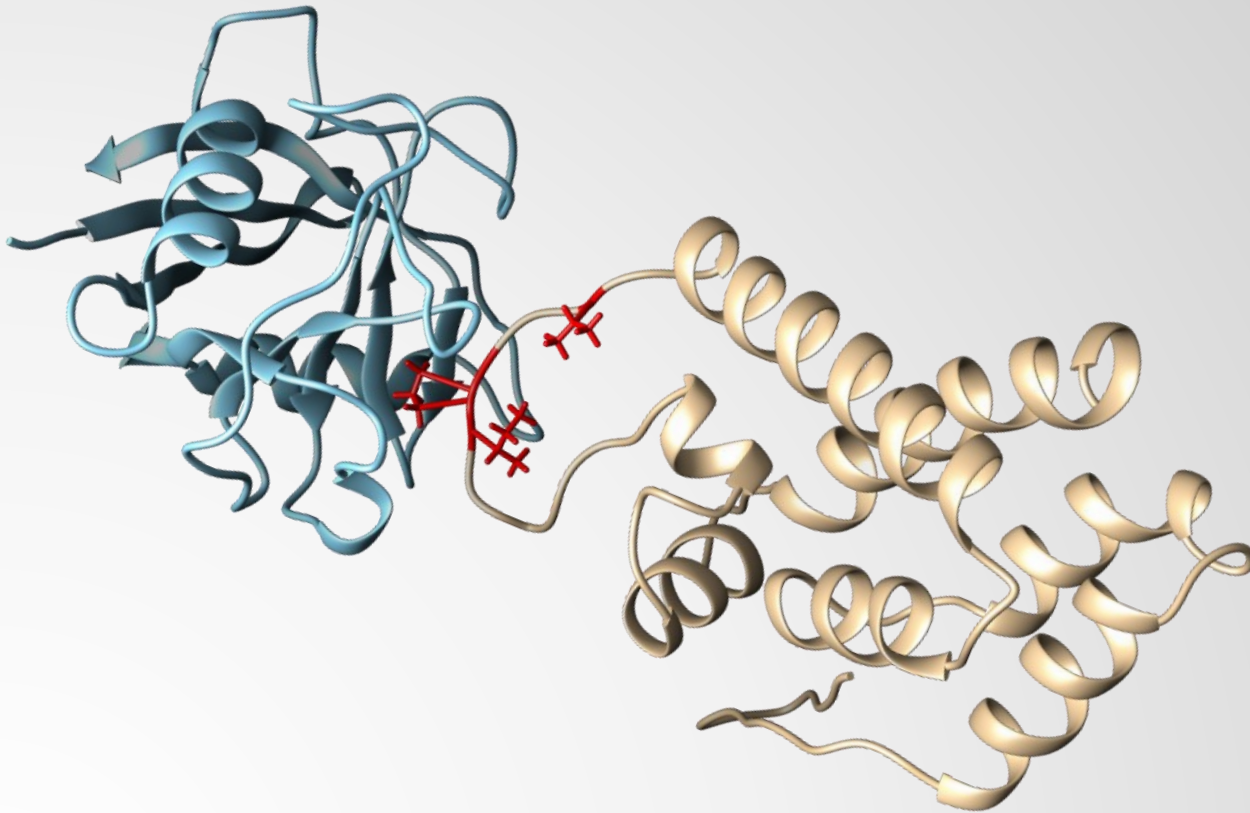


Structural bioinformatics presentation



Alberto Meseguer

Course 2023-2024

Structural bioinformatics

In the structural bioinformatics subject we study the relation between sequence, structure and function of proteins

We combine this knowledge with the use of bioinformatical tools for the analysis of sequence and structure of proteins.



Parts of the subject

Theory 30-25%

Practicals 40-35%

Project 35%

Parts of the subject

Theory 30-25%

Theoretical lectures
with Baldo Oliva and
Josep Lluís Gelpí

Final exam

Minimum 4

Practicals 40-35%

Project 35%

Parts of the subject

Theory 30-25%

Practicals 40-35%

Project 35%

Computational
seminar sessions
with Alberto
Meseguer

Final exam (20%)

Minimum 4

Partial exam on
07/02 (15%)

Parts of the subject

Theory 30-25%

Practicals 40-35%

Project 35%

Presentation about
sequence, structure
and function of a
protein family

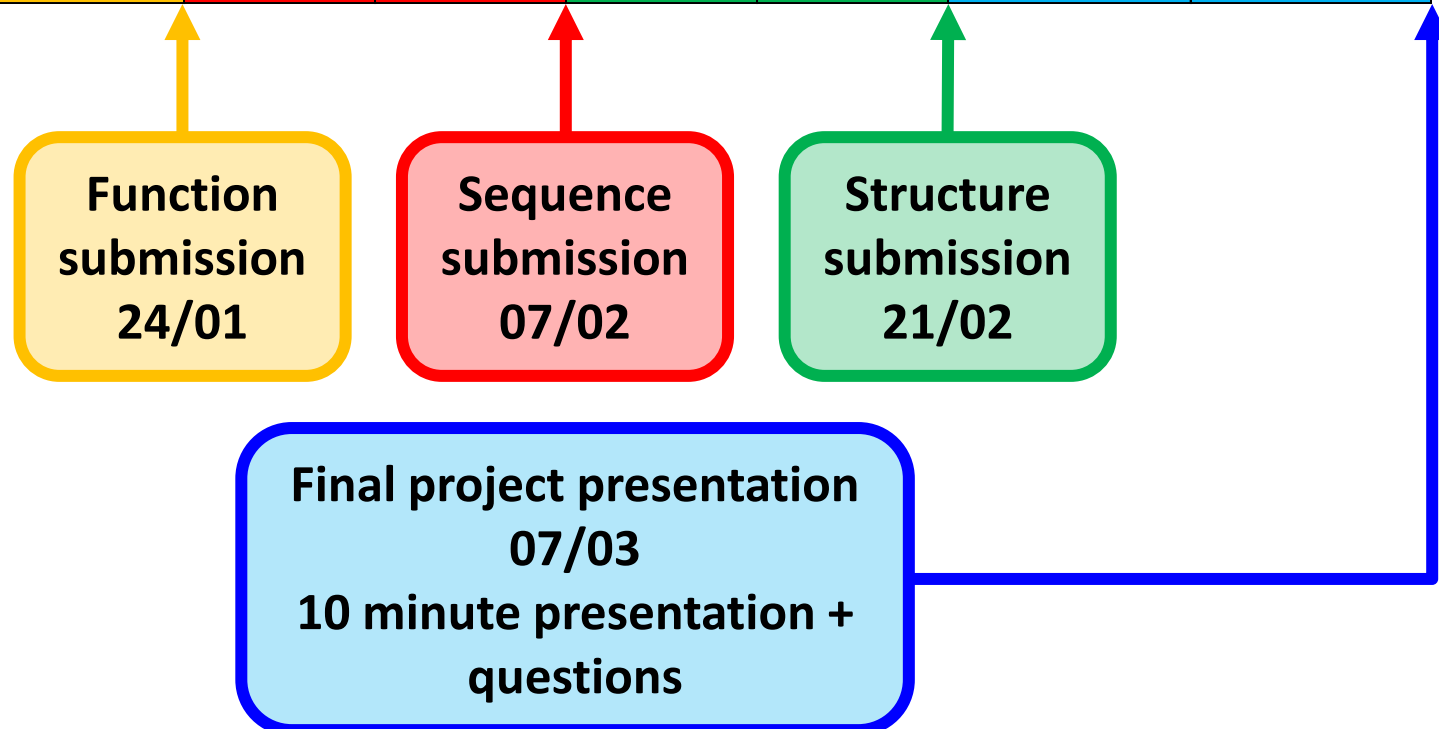
Final presentation
(15%)

Continuous
assessments (20%)

Organization of the project

The continuous evaluation of the project will consist of 3 submissions during the semester

Week	1	2	3	4	5	6	7	8
Practical	Sequence	Sequence	Structure	Structure	Docking	Alphafold	MD	MD
Project	Function	Function	Sequence	Sequence	Structure	Structure	Docking & MD	Docking & MD



Organization of the project

The continuous evaluation of the project will consist of 3 submissions during the semester

Week	1	2	3	4	5	6	7	8
Practical	Sequence	Sequence	Structure	Structure	Docking	Alphafold	MD	MD
Project	Function	Function	Sequence	Sequence	Structure	Structure	Docking & MD	Docking & MD

See that on each submission you will apply the skills you gained in the previous seminars

The project starts now!

In two weeks you have to make the first submission!

1. Make teams of 3 or 4 students, all students of the team should belong to the **same seminar group**.
2. Choose one protein family from the options you have available in the moodle. Then, send me an email (alberto.meseguer@esci.upf.edu) saying who is in the group and what protein family you want to work with.
3. The questions for each of the submissions that you have to make are in the moodle, as well as the links to make your submissions.

The project starts now!

For each submission you will have a set of questions that you will have to answer

Then, your submission will consist of two parts:

A written document

A powerpoint presentation

The project starts now!

For each submission you will have a set of questions that you will have to answer

Then, your submission will consist of two parts:

A written document

A powerpoint presentation

After each submission you will have personalized feedback

Work a little bit every day


The submissions are thought for you to use and consolidate what we do on the seminars

If you keep updated with the work we do in the seminars and work on your project regularly is very likely that you will pass this subject:

Theory 30-25%

Practicals 40-35%

Project 35%



By doing so you are covering
around 70% of the subject

Attendance to seminars is mandatory

Any student who misses more than one seminar without justification will fail the subject

And I will ask for the names of all the students at the beginning of the class.

If some of you cannot come because of sickness or other major reasons, you have to send me a justification document at alberto.meseguer@esci.upf.edu.
Otherwise it will count as if you didn't come to class.

Changes of group by default are not allowed. If you are having an exceptional situation, you should inform me previously and then exchange yourself with a student of the other group.