

Project-Based Learning for the use of R in Biochemistry and Molecular Biology research



Material

Previous introduction to R
Course Materials &
Exercises online in advance
for autonomous work.



Work Lessons

Parallel Experts
Meetings:

- 2 rounds.
- 2 parallel.

Group meetings:

- 2 groups together.
- 1 day per Lesson.



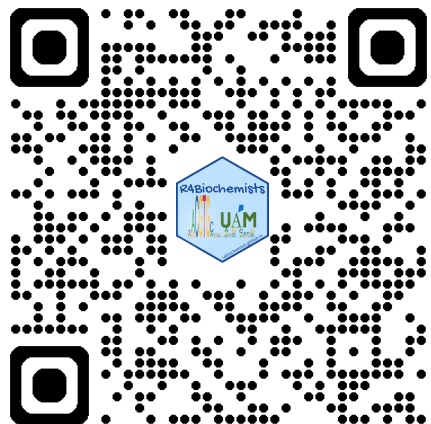
Project in Groups

- Choose 2 projects out of 7 proposed.
- Develop the scripts with example data.
- Create a **reproducible and reusable** Markdown.
- Demo Day: Test with alternative datasets



Enjoy

Use R in your
research!

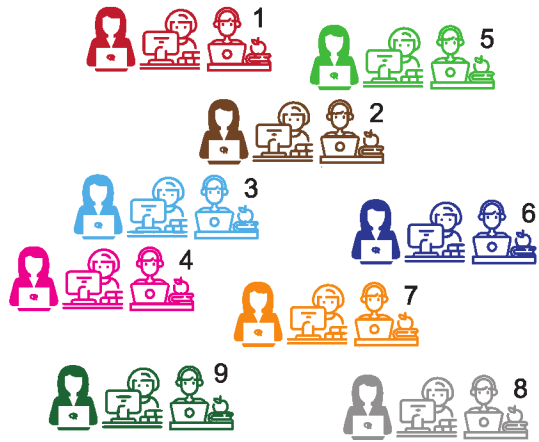


r4biochemists.github.io

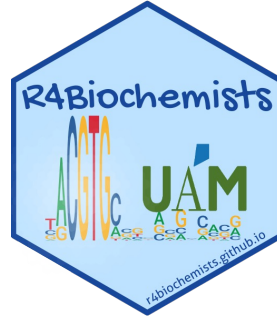


Blanca Lacruz
Víctor Mateo
Luis del Peso
Modesto Redrejo
Fall Semester 2024

PHASE I



PBL Intro

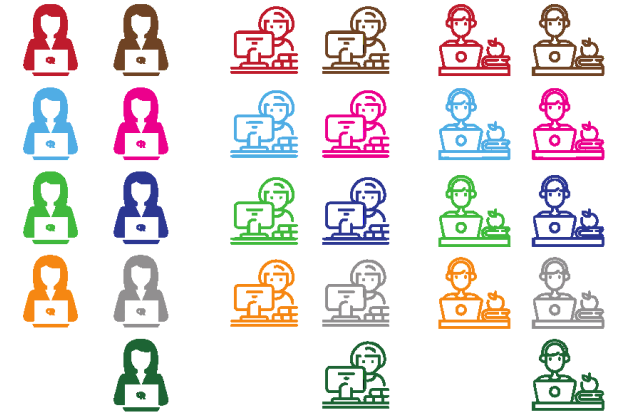


31 October (Aula 0)
Experts Nomination

Before 5 November
**Experts review
the material &
exercises**



Experts Meeting Round I (x3)



R3A R3B R4A R4B R5A R5B

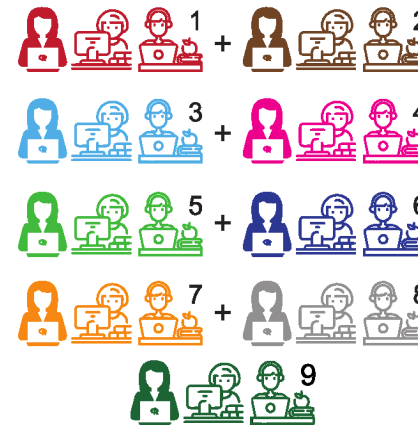
A: Teams 1, 3, 5 & 7

B: Teams 2, 4, 6, 8 & 9

R Intro & Exercises (R1 & R2)

17 to 31 October (Aula 0)

Base Teams Meeting (x5)



**GOAL: Work the lesson
and discuss exercises**

7 (R3), 12 (R4) &
14 (R5) November (Seminario 10)

5 November
(Seminario 10)

**GOAL: Discuss difficult
points among experts
and with instructors.**

All students review
materials & try the
exercises in advance



Project v.0 Feedback
21 November
(Seminario 10)

Project v.0
19/11/2023
(23h)



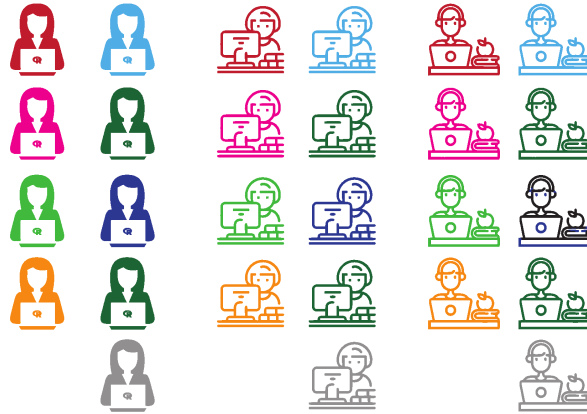
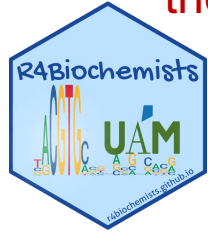
**Review &
Lesson R6**

19 November
(Seminario 10)

PHASE II

Experts Meeting Round II

Before 28 November:
Experts review
the material



R7A R7B R8A R8B R9A R9B

28 November (Aula 0)

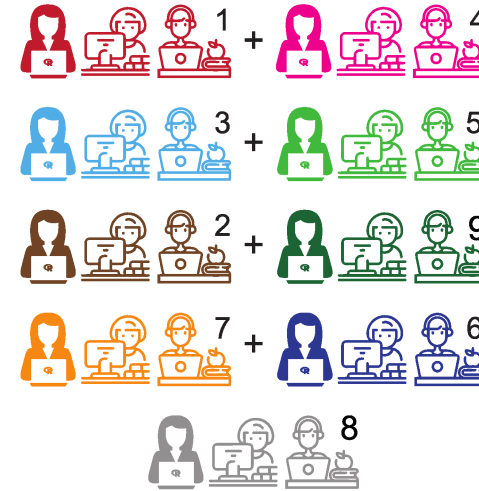
A: Teams 1, 4, 5, 6 & 7

B: Teams 2, 3, 8 & 9

GOAL: Discuss difficult points

Among experts and with instructors.

Base Teams Meeting II (x5)



3 (R7 & R8) &
5 (R8 & R9) December
(Seminario 10)

Work the lesson and
discuss exercises



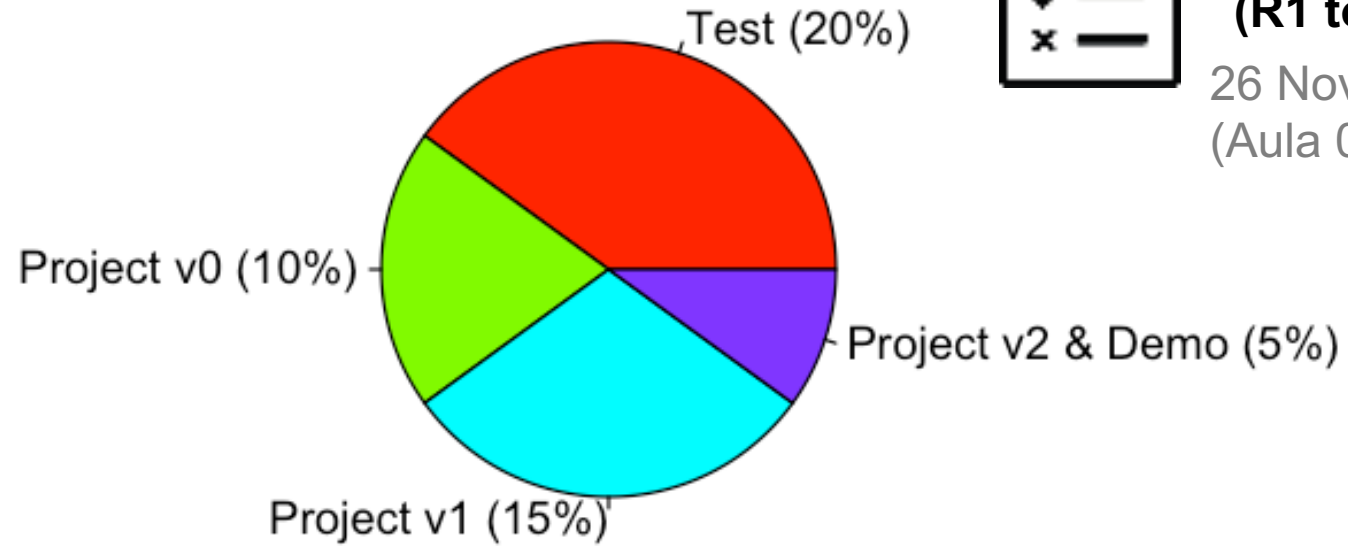
Demo Day
17 & 21 December
(Seminario 10)



Project v.1 Feedback
10 & 12 December
(Seminario 10)

Project v.1
9/12/2023
(23h)

Assessment



**Test Basic R
(R1 to R6)**

26 November
(Aula 0)