



Universitat de Lleida

DEGREE CURRICULUM

# **JOURNAL CLUB FOR BIOMEDICAL STUDENTS**

Coordination: FERREZUELO MUÑOZ, FRANCISCO

Academic year 2023-24

## Subject's general information

Subject name	JOURNAL CLUB FOR BIOMEDICAL STUDENTS			
Code	101662			
Semester	1st Q(SEMESTER) CONTINUED EVALUATION			
Typology	Degree	Course	Character	Modality
	Bachelor's Degree in Biomedical Sciences	4	OPTIONAL	Attendance-based
Course number of credits (ECTS)	3			
Type of activity, credits, and groups	Activity type	PRAULA	TEORIA	
	Number of credits	2	1	
	Number of groups	1	1	
Coordination	FERREZUELO MUÑOZ, FRANCISCO			
Department	BASIC MEDICAL SCIENCES			
Teaching load distribution between lectures and independent student work	1 credit = 10 hours lectures + 15 hours student's work			
Important information on data processing	Consult <a href="#">this link</a> for more information.			
Language	English			

Teaching staff	E-mail addresses	Credits taught by teacher	Office and hour of attention
FERREZUELO MUÑOZ, FRANCISCO	francisco.ferrezuelo@udl.cat	3,6	

## Subject's extra information

This course is aiming at introducing the processes of scientific research and scientific publishing. Along the course we will discuss and debate on a number of topics of interest: basic vs applied research, reproducibility, open science and open publishing, cheating in science, women in science... We will have to read some scientific literature critically and carry out in-class discussions in English. The reading load should not exceed the allocated 45 hours of student's work for the whole course. This is an optional course, hence the prospective student must realize that choosing this course means being willing to read and contribute to the discussions. If you are a student who thinks that making the effort to read is not worthy, please do not take this course.

This course is NOT about getting up-to-date knowledge about any specific subject in biomedicine. It is NOT about how to write scientific papers. It is NOT a Journal Club as those implemented for graduate students doing their PhD thesis in narrowly-related research fields.

## Learning objectives

To carry out effective communication, both orally and in writing, with people, health professionals or industry and the media.

To know how to use information and communication technologies, especially those related to biomedical sciences and health .

To understand, critically assess and know how to use and apply the sources of information related to research in biomedical sciences.

To interpret the results and observations of research projects in biomedical sciences.

To acquire basic training for the research activity, being able to formulate hypotheses, collect and interpret information to solve problems following the scientific method.

## Competences

CB1 That students have demonstrated to possess and understand knowledge in an area of study that starts from the base of high school education, and it is usually found at a level that, although supported by advanced textbooks, also includes some aspects that involve knowledge from the cutting edge of their field of study

CB2 That students know how to apply their knowledge to their work in a professional manner and possess the competencies that are usually demonstrated through the elaboration and defense of arguments and the resolution of problems within their area of study.

CB3 That students have the ability to gather and interpret relevant data (usually within their area of study) to make judgments that include a reflection on relevant social, scientific or ethical issues.

CB4 That students can transmit information, ideas, problems and solutions to both specialized and non-specialized audiences.

CG1. Have a correct oral and written expression

CG2 Mastering a foreign language.

CG4 Respect the fundamental rights of equality between men and women, the promotion of Human Rights and the values of a culture of peace and democratic values.

CG5 Apply the gender perspective to the tasks of the professional field

CE14. Design simple studies and analyze the results according to the stated objectives.

CE18. Critically assess and use the technologies and sources of clinical and biomedical information to obtain, organize, interpret and communicate clinical, scientific and health information

CE65. Analyze scientific information through specialized publications, as well as being able to summarize and present it in different formats.

CE66. Recognize the scientific methodology of the investigation.

CE72. Properly use the scientific and technical vocabulary of the different fields of biomedical sciences Be able to make understandable written reports on the work carried out, with a justification based on the theoretical-practical knowledge obtained

CE73. Use the scientific method to analyze data and design experimental strategies related to biomedical sciences.

CE74. Present a public exhibition of a scientific work

Being able to interpret the statistical results of a study and discuss the conclusions based on the results of the analysis.

## Subject contents

Along this course we will discuss a number of topics of general scientific interest, usually exemplified with literature from the field of Biomedicine. The course is not a closed entity, and the students are very welcome to contribute topics of their own interests. Among other subjects we may discuss what Science is and why we should trust scientists, the publishing process and peer-review, open science and open access publishing, basic vs applied research, the problem of reproducibility, bad science vs good science, how to read a scientific paper, how to write an abstract, cheating in science, disguising non scientific arguments as scientific...

## Methodology

The methodology of the course is based mainly on discussions about the different topics we will address. But first, we will have to introduce these topics. This may be done by in-class presentations (by the professor), by video visualizations or by homework reading.

Students should expect some assignments related to in-class topics as homework.

## Development plan

In general, the course is organized to have in-class sessions every other week. This will allow enough time for homework. Nonetheless, during the week with in-class sessions we may also need to read or complete some little

assignments.

## Evaluation

In principle, there will be no tests (exams) during the course, but this will depend on the number of students. Should this be high (more than 12 or so), then we may need to have a final test. As long as the students make a minimal effort to complete the homework and make some contributions to the discussions, there should be no problem to pass satisfactorily this course.

Because the course is based on in-class discussions IT IS REQUIRED TO ATTEND CLASSES. You will need to attend at least 80% of the sessions in order to get a grade. This is especially important for those students with courses in the 3rd year of the degree because some overlapping may take place. Please check this before registering for the course.

## Bibliography

There is not a general bibliography for the course. In most cases, the professor will provide material (usually as pdf files) for each topic.