



SCIENTIFIC COMMUNICATION

CU characterization: CU name: Scientific Communication Scientific area acronym: CB - BCM **Duration**: Semiannual Working hours: 84 h **Contact hours:** 40 h ECTS: 3 **Observations:** T: 12 h TP: 8 h S: 8 h T: 12 h

Teacher in charge and respective teaching load in the CU: Gabriela Santos-Gomes – 0-47

Other teachers and respective teaching load in the CU:

Ana Domingos – 0.47 Ana Paula Arez -0.33 Armanda Rodrigues – 0.40 Fátima Nogueira – 0.33 Isabel Mauricio – 0.40 João Pinto – 0.40 Rosa Teodósio – 0.40 Sandra Antunes - 0.40



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Intended learning outcomes (knowledge, skills and competences to be developed by the students):

At the end of the course, students should:

- 1. Use various digital tools to prepare a scientific paper
- 2. Recognize the constitution of a scientific article, poster, thesis or monograph 3. Clearly and concisely outline posters and articles for publication
- 4. Select the most appropriate information to convey in an oral communication
- 5. Communicate scientific information orally
- 6. Develop constructive criticism skills

Syllabus:

1. Technical aspects of scientific communication. Organization and presentation of tables and images (graphs, figures, tables, maps, diagrams). 2. Oral scientific communication: presentations, seminars

- 3. Scientific writing. Writing reports, theses and monographs
- 4. Structure, content, and design of posters
- 5. Structure and content of scientific articles (experimental, review). Citations and drawing up a list of references. Submission process.
- 6. Scientific evaluation methodology. Self-evaluation.
- 7. Ethics in scientific communication.

Evidence of the syllabus coherence with the CU intended learning outcomes:

The syllabus of this applied curricular unit aims, in a first approach, to provide students with useful tools for scientific writing and communication, namely the ability to participate in public scientific meetings. In the second step, students should acquire the necessary skills to select the scientific aspects to be communicated, adapting them to the various aspects of scientific communication. In addition, the identification of evaluation parameters is encouraged throughout the different activities, demonstrating the importance of self-assessment, and stimulating the construction of constructive critical reasoning.

Teaching methodologies (including assessment):

Lectures Theoretical-practical classes Seminars

Assessment

The assessment of learning outcomes will be continuous and on a formative basis, taking into account

- 1. attendance and participation in theoretical classes
- 2. performance in the preparation of oral presentations and posters
- 3. performance in seminars



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Evidence of the teaching methodologies coherence with the CU intended learning outcomes: In addition to lectures, which aim to provide students with basic concepts and promote the systematization of acquired knowledge, interactive digital methodologies are used. These methods, which involve the doctoral students in the teaching-learning process, focus on the use of computer tools, the effective preparation of posters, and the oral communication of scientific knowledge through the organization of mini-congresses. The analysis and qualitative selfassessment of the different aspects of scientific communication produced by the students conclude the objectives of this course.

References for consultation / mandatory existence:

- 1. Mason P, Wright P and Luu N H. Writing and Publishing a Scientific Article. 90pg
- 2. Scientific writing and publishing results. Tropical Biology Association, UK. 14pg
- 3. Bourne PE. 2007. Ten simple rules for making good oral presentations. PLoS Comput Biol. 3(4): e77.
- 4. http://colinpurrington.com/tips/poster-design#motivationaladvice





