

COURSE SYLLABUS

1. Identification

Code and title: QUP 175 – Scientific research methodology

Professor: Rosane Michele Duarte Soares

Level: Master and Doctorate

Credit hours: 2

Revised: August_2021

2. Summary

Enable the student to access and synthesize scientific information in the different ways in which it is expressed.

3. Objective

Enable the student to express orally and in writing their research projects and results (scientific articles, dissertation, thesis, intellectual property proposals) in a clear, dense and scientifically rigorous manner, with particular attention to expression in English.

4. Contents

- The scientific method
- The researcher and scientific communication
- Ethics and Scientific Research
- Literature revision
- Structure and dynamics of a research project
- Structure and dynamics of a scientific article
- Oral communication of research results
- Practices in writing, critiquing and reviewing a research project (in Portuguese) and a scientific article (in English)

5. Assessment

List of exercises, presentation and discussion of scientific articles, theoretical tests and/or directed works. The student, who obtains a final grade of A, B or C, awarded as per the list below, will be considered approved:

A: grade equal to or above 9.0

B: grade equal to or above 7.5 and below 9.0

C: grade equal to or above 5.0 and below 7.5

D: grade below 5

FF: lack of frequency

6. Methodology

Lectures, exercises lists, seminars and examinations.

7. Bibliography

- Hofman, A. H. Scientific writing and communication, 2 Ed., Oxford (2013)

- R. A. Day and B. Gastel, How to Write and Publish a Scientific Paper, 6. Ed., Greenwood Press (2006);
- W. C. Booth, J. M. Williams and G. G. Colomb, The Craft of Research, 2. Ed., University of Chicago Press (2003);
- G. Câmara, Metodologia de Pesquisa Científica, <http://www.dpi.inpe.br/cursos/ser212/index.html>;
- J. Wudka, The Scientific Method, http://phyun5.ucr.edu/%7Ewudka/Physics7/Notes_www/node5.html;
- F. Wolf, Introduction to the Scientific Method, http://teacher.nsrll.rochester.edu/phy_labs/AppendixE/AppendixE.html;
- A. Waldron, P. Judd and V. Miller, Physical Review Style and Notation Guide, <http://authors.aps.org/STYLE/>. AIP Style Manual, <http://www.aip.org/pubservs/style/4thed/toc.html>;
- M. Ashby, How to Write a Paper, 6. Ed., <http://www.mech.eng.cam.ac.uk/mmd/ashby-paper-V6.pdf>;
- UW-Madison Writer's Handbook, <http://www.wisc.edu/writing/Handbook/index.html>;
- W. Strunk, Jr., The Elements of Style, <http://www.bartleby.com/141/index.html>.