METODOLOGIAS DE INVESTIGAÇÃO PARA STEAM

Code: 27222

Main Scientific Area: Computer Graphics and Multimedia

Lecturer: Sara Maria Alves da Cruz

Language of Instruction: Portuguese

Regime: T1

Contact Hours: 24h Total Workload: 57h

ECTS: 3,0

Objectives

The CU of Research Methodologies presents the following objectives:

-Assimilation processes, methodologies and practices related to scientific research;

-Development of scientific-critical spirit;

-Development of the ability to produce a scientific text and the work plan of the dissertation.

Learning Outcomes

Students who successfully complete the CU of Research Methodologies should possess the following knowledge and skills:

- Understand the major research methodologies;

- Be able to identify a research problem and conduct a literature review associated;

- Define a scientific methodology and work plan;

- Develop scientific articles.

Course Contents

Component Theory-Practice:

1. Understand the concepts of scientific research;

2. Identify a problem and carry out the research literature review;

3. To define a conceptual model and hypotheses;

4. To define research methodology and work plan;

5. Implement scales of measurement variables and process data collection;

6. Apply appropriate statistical techniques to data processing.

Practical component:

1. Research and analysis of scientific articles;

2. Written of a scientific article;

3. Develop of the work plan of the Project;

4. Statistics tools.

Recommended Bibliography

- Yin, R.K. (2014), Case Study Research. Design and Methods,5th edition, Newbury Park: SAGE Publication, California.

- Hair, Joseph F, Jr., Rolph E. Anderson, Ronald L. Tatham e William C. Black (2010) Multivariate Data Analysis (7th Ed.); Upper Saddle River, US: Prentice Hall.

- Patrick F. Dunn (2018), Measurement and Data Analysis for Engineering and Science, 4th edition, CRC Press, New York. - www.b-on.pt

Learning and Teaching Methods

The contents are presented in order to explore a sustained manner necessary to supplement the training of students in the field of research methodologies seeking to deepen concepts related to areas of most importance to the activities of demand and scientific research materials. The content of the proposed program addresses the various essential aspects of meeting these targets, particularly with regard to current topics and recent developments.

Assessment Methods

The evaluation is performed according to the provisions of Rules. For the final grade of the student is considered continuous assessment (carrying out research / practical work report and / or tests). If the student wishes to obtain approval or make improvement evaluation, this may be obtained in the normal examination period or appeal. The final rating is calculated according to the expression: 0.2 * (review article) + 0.3 * (Article writing) + 0.5 * (Project working plan).

If the final grade is less than 9.5 points, the student is not approved in the curricular unit.

At the time of appeal, there will be a single final exam with a weight of 100%.