



UNIVERSITÀ  
DEGLI STUDI DI MILANO-BICOCCA

## SYLLABUS DEL CORSO

### Storia della Scienza

2021-2-E2004P010

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#### Learning area

3: Study of socio-economic and cultural aspects related to communication processes.

#### Learning objectives

##### *Knowledge and understanding:*

- Main concepts and themes on the history of western scientific thought
- .....
- .....

##### *Applying knowledge and understanding:*

- Improvement of the student's cultural background, increasing his critical attitude and awareness of scientific investigation as a tool for the management and solution of collective issues
- .....
- .....

#### Contents

*Title > Revolutions and «decentralizations»: Copernicus, Darwin, and Freud*

The course is divided into two parts.

a) After some preliminary considerations on the concept of "science" and on the main models of interpretation of its development, the **first institutional part** will examine some fundamental moments of the history of Western scientific thought from antiquity to the 20th century. In this context, particular attention will be paid to the origins and developments of experimental psychology between the 19th and 20th centuries as an interdisciplinary synthesis among philosophy, physics, biology and neurophysiology.

b) After some preliminary considerations on the concepts of "revolution" and "decentralization", the **second monographic part** will examine three specific revolutions in the history of Western philosophical and scientific thought, together with their consequences in terms of "decentralization" and "change of perspective": the Copernican revolution as decentralization *of the world*, Darwinian evolutionism as decentralization *of man* and Freudian psychoanalysis as decentralization *of the ego*.

## Detailed program

**a) General part – *Fundamentals of history of scientific thought***

1. **Identifying the Problem:** The first step is to identify the problem or issue that needs to be addressed. This involves understanding the context, the scope of the problem, and the stakeholders involved.

2. **Research and Analysis:** Once the problem is identified, the next step is to conduct research and analysis. This involves gathering relevant information, data, and insights to understand the problem more deeply.

3. **Developing a Solution:** Based on the research and analysis, a solution or approach is developed. This involves brainstorming ideas, evaluating options, and selecting the most effective and feasible solution.

4. **Implementation:** The next step is to implement the solution. This involves putting the plan into action, allocating resources, and coordinating efforts to ensure the solution is effectively implemented.

5. **Evaluation and Monitoring:** Finally, the solution is evaluated and monitored. This involves assessing the impact of the solution, identifying any challenges or setbacks, and making adjustments as needed to ensure the solution is successful.

6. **Communication and Reporting:** Throughout the process, communication and reporting are essential. This involves keeping stakeholders informed, sharing progress updates, and documenting the results of the problem-solving process.

7. **Reflection and Learning:** After the problem is solved, it's important to reflect on the process and learn from the experience. This involves identifying what worked well, what didn't, and how the process can be improved for future problems.

8. **Documentation:** Finally, the solution and the process used to solve the problem are documented. This involves creating a clear and concise record of the problem, the solution, and the steps taken to implement the solution.

9. **Follow-up:** After the solution is implemented, it's important to follow up to ensure the solution is working as intended and to address any ongoing issues or challenges.

10. **Conclusion:** The problem-solving process is a continuous cycle that involves identifying the problem, researching and analyzing the problem, developing a solution, implementing the solution, evaluating and monitoring the solution, communicating and reporting on the solution, reflecting and learning from the solution, documenting the solution, and following up on the solution.

## Prerequisites

None.

## Teaching methods

Teaching methods consist in direct exposure, group discussion, analysis of historically and scientifically significant texts, the development of experiences and/or exercises, and in-depth studies of a seminar nature. **Class attendance is strongly recommended.**

## Assessment methods

The verification of learning will be carried out through a written test, divided into a part with multiple-choice questions and a part with open questions. The questions are aimed at testing the effective acquisition of the topics illustrated during the course, as well as to ascertain the ability to manage the contents of the proposed bibliography and the capability to critically deal with them.

Upon student's request, the exam can be integrated by an oral examination, on all the course topics.

## Textbooks and Reading Materials

- Maiocchi, R. (1995). *Storia della scienza in Occidente: Dalle origini alla bomba atomica*. Firenze: La Nuova Italia (pp. 16-43, 50-61, 71-89, 97-112, 124-126, 128-141, 156-157, 191-202, 207-227, 247-287, 314-321, 326-334, 337-344, 347-348, 365-368, 371-375, 450-451, 454-469) [available on line].
- Morabito, C. (2007). *Introduzione alla storia della psicologia*. Roma-Bari: Laterza (pp. 21-51, 55-85, 115-159).

NB. Additional supplementary materials (e.g. slides) will be made available on the e-learning platform at the end of the course. These supplementary materials are **part** of the examination program.

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