

Warsaw PhD School of Natural and BioMedical Sciences [Warsaw-4-PhD]

Lecture

The History of Experimental Science

15 hours, 3 ECTS

Institute of Physical Chemistry
Polish Academy of Sciences
Kasprzaka 44/52, 01-224 Warsaw
Bldg. 9, Conference Room

Wednesdays 16:00 – 17:30 CET/CEST

1st lecture: March 1, 2023

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Syllabus:

- Ancient time (miss)understanding of nature. Explanation by evidence.
- Scientific method. Physical and thought experiments. Criticism.
- Measurements of too small, too big, or too fast to see.
- Measurements of (latent) heat.
- Where is the origin (center)? Do we stand or move? What happens around?
- Free falling, rotation, heat, energy (conservation), implications.
- Nature of light, energy, speed, interference, propagation medium.
- Other radiations and interaction with matter. Matter waves. Radioactivity.
- Electromagnetism.
- Resolving composition of matter. Measuring indivisible. Dividing indivisible.