

### **Rationale for the course**

Scientists have to give arguments all the time – in their publications as well as in conferences and lab meetings. Nevertheless, the bases for convincing and strong arguments are not fully clear to all scientists. Logic provides extremely helpful tools for scientists to develop their arguments in a coherent, well-structured and convincing way, enabling them to better plan experiments to support their hypotheses and to better present their results.

### **Contents**

The workshop starts with some general questions about arguments: What are the building-blocks of an argument? What does it mean for an argument to be logically valid? The participants then learn how to reconstruct arguments from texts, that is, how to state the premises and the conclusion of an argument and how to spot hidden premises in arguments. Participants are invited to bring texts from their own research and to apply the acquired methods directly in the course. The course also offers exercises where participants write their own texts and receive individual feedback from the group.

The second part of the seminar introduces the difference between inductive and deductive arguments. In addition to this, the participants will get to know some very common types of fallacies and unfair arguments, such as *ad hominem* or straw-man arguments. The last part of the seminar offers a number of exercises on oral reasoning.

### **Specific Contents (among others)**

- validity and soundness of arguments
- types of logical inferences
- deductive and inductive arguments
- common fallacies and unfair arguments
- reconstructing arguments from texts
  - stating the premises and conclusion of an argument
  - spotting hidden premises of an argument
- exercises on writing logically valid arguments
- logical analysis of texts brought by the participants
- tools for oral argumentation
- debating exercises

### **Course aim – general**

In addition to learning how to give more convincing arguments in their publications and in debates, the course will also help participants to identify inconsistencies in scientific reasoning and to judge more accurately whether their own positions are well justified.

### **Specific learning outcomes**

Participants will...

- get to know the fundamental concepts of logic (validity, soundness, standard form of arguments, types of inferences, fallacies etc.)
- learn to quickly identify the strengths and weaknesses of arguments
- learn how to break down arguments into their logical structure
- learn how to give well-structured and convincing arguments (written and orally)
- practice analytical-thinking skills.

## **Target Group**

PhD students and postdocs from all disciplines

## **Methodology**

The methods are interactive throughout. The course provides extensive exercises that aim at the application of the acquired skills to the participants' individual fields of work. The participants get individual feedback on the results of their exercises. The theoretical contents of the course are also conveyed through dialogue and exercises. There will be no pure presentations by the trainer.

## **Term and Application**

- September 26-27, 2018, 9am – 5 pm
- Venue: Lecture Hall G, Universitätsplatz 8/9 (Melanchthonianum), 06108 Halle (Saale)
- Group size: maximum 15.
- Workshop-Language: English.
- **Application period between August 1 and September 19**  
email to: **koordination@ingra.uni-halle.de**
- Applications are considered in chronological order of receipt. You get information.

## **Trainer**

Dr. David Lanius (Berlin) hat Philosophie, Linguistik und Logik studiert und mit einem Stipendium der Studienstiftung des Deutschen Volkes an der Humboldt-Universität zu Berlin promoviert. Er war während seiner Studien- und Promotionszeit an der Universidad Complutense de Madrid (Spanien), am Institute of Logic, Language, and Computation in Amsterdam (Niederlande) und an der University of Southern California in Los Angeles (USA). David Lanius hat mehrjährige Lehrerfahrung im universitären und außeruniversitären Bereich, insbesondere in der entwicklungspolitischen Bildungs- und Flüchtlingsarbeit.

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