

# Formal Concept Analysis

## Welcome and Organizational Issues

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# Organization

## Lectures and Exercises

lecture Monday, 11:10 – 12:40, room APB E005

**hands-on** exercise Monday, 9:20 – 10:50, room APB E005

## Course Web Page

[https://iccl.inf.tu-dresden.de/web/Introduction\\_to\\_Formal\\_Concept\\_Analysis\\_\(SS2026\)](https://iccl.inf.tu-dresden.de/web/Introduction_to_Formal_Concept_Analysis_(SS2026))

## Contact

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# Organization

*hands-on exercise* means

- *autonomous work* on the practice sheet in small teams of 3-4 students, under supervision
- *no general repetition* of lecture material
- *no demonstration* of the sample solution (will be provided later)

*necessary* for that is

- making notes during the lecture
- performing autonomous follow-up course work *before* the exercise
- bringing material and your notes to the exercise
- developing own activity

# Organization

## *Why this exercise concept?*

- active development of the lecture material is more effective
- discovering relationships in the material
- learning structured thinking and autonomous working
- learning team work
- learning to explain things
- exercise for the exams ;-)
- *You have finished your study of ... Your personal strengths include pro-activity and team work, you are communicative and willing to cooperate. (typical job advertisement)*

# Overview

- Organization
- ❶ Contexts, Concepts, and Concept Lattices
  - ❶ Concept Lattices
  - ❷ Multi-valued Contexts and Conceptual Scales
- ❷ Closure Systems and Implications
  - ❸ Closure Systems
  - ❹ Implications
- ❸ Knowledge Discovery
  - ❺ Attribute Exploration
- ❹ Extensions of FCA
  - ❻ Triadic Formal Concept Analysis