# Lógica y Metodos avanzados de Razonamiento

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# Topics:

- **First-order Logic and decidable fragments:**
  - Basic Recap of propositional and First-order Logic
  - The Horn Fragment
  - Description Logics fragments

- **Logic programming**
  - negation-as-failur
  - stable models
  - well-founded semantics

- **Answer set programming**
  - basic constructs
  - language extensions

- **Nonclassical logics**
  - Intuitionistic and intermediate logics
  - many-valued logics
  - strong negation

- **Applications -** Semantic Web:
  - RDF, OWL Semantics
  - ASP for the Semantic Web

- **Nonmonotonic Reasoning**
  - default logic
  - autoepistemic logic

- **Overview of basic modal logic**
  - modal logics
  - epistemic logics
  - temporal logics
  - deontic logics

# Topic of this course 2/2

- Depends (also) on you!
- How many plan to follow the course over the semester?
- Where do we start?
- What is your pre-knowledge?
  - Propositional logic, First-order logic, Resolution, Natural deduction?
  - Does any of these terms ring the bell?

# Schedule:

- Wednesday, 3-5 here, unless agreed otherwise.
- Exam at the end of the semester
- Suggestion: Solving practical examples during the semester can increase your buffer for the exam, on a voluntary basis.

# That’s basically all for today!

- Next week start with Logic recap!
- Be sure to enter your name and email in the list I passed around!

- More info will follow on my webpage soon:

  http:www.polleres.net/teaching.html