

# Concurrency course

**Level:** Engineering school (year 4)

**Main subject:** computer science

- Courses:**
- concurrency:
    - mutual exclusion, semaphores, ...
    - using SPIN
    - introduction to formal verification
  - real-time systems:
    - option (approx. 100 hours)
    - formal specification and verification
    - asynchronous/synchronous systems
    - project (model train)

# Formal methods

**Level:** Master by research

**Main subject:** computer science

- Courses:**
- model-checking (mandatory, 36 hours)
  - high-level Petri nets (optional, 36 hours)
  - timed systems (optional, 36 hours)

# Computer networks

**Level:** technology institute, year 1

**Main subject:** telecommunications and networking

**Course:** introduction to computer networks

- model a protocol using automata

# Conclusions

Place for teaching concurrency in curricula depends on:

- focus of the curriculum
- level of the students

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## Opinion concerning my experience

- good position w.r.t. expectations
- even improving
- interesting approach with 1<sup>st</sup> year students