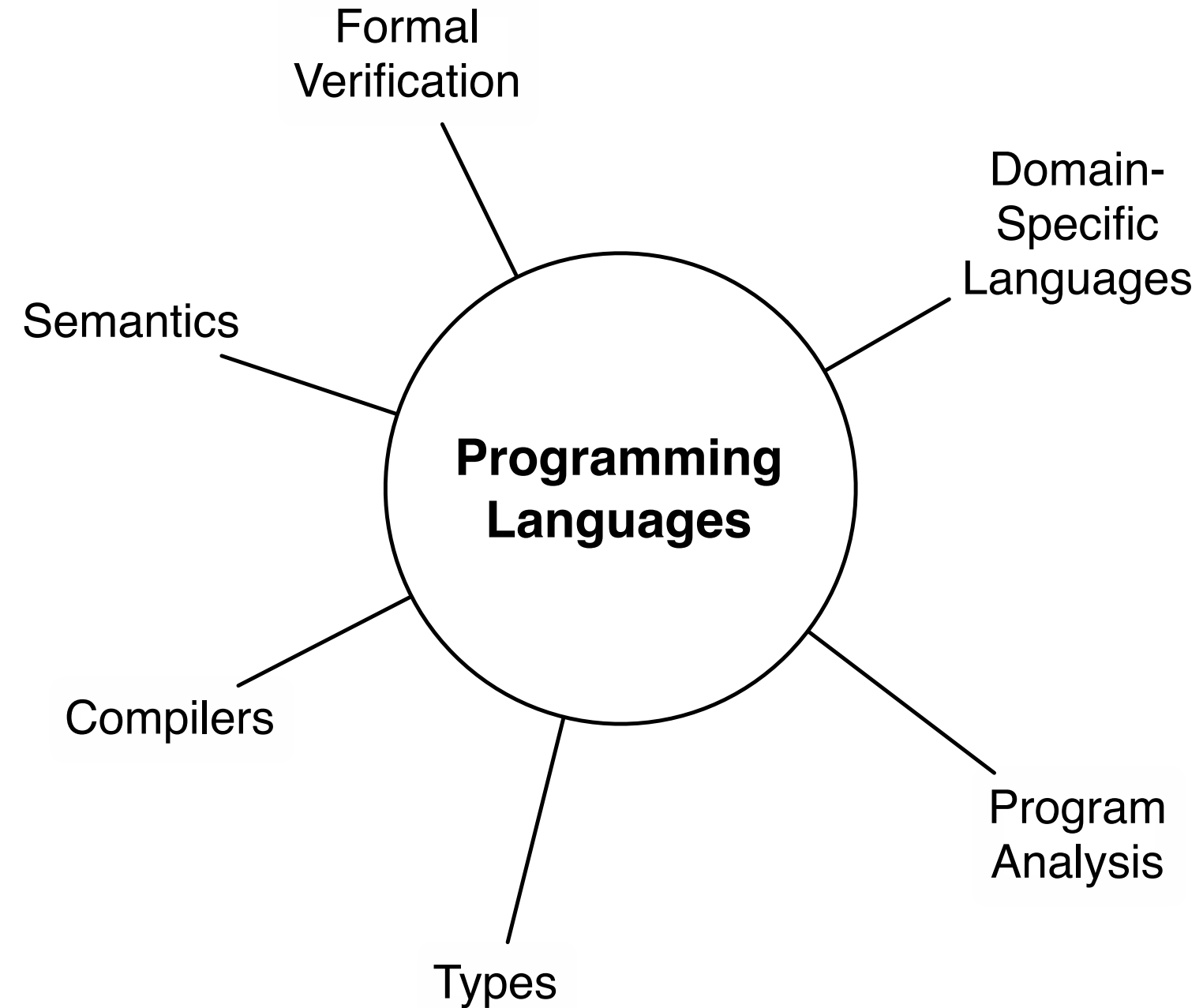


CS 6110

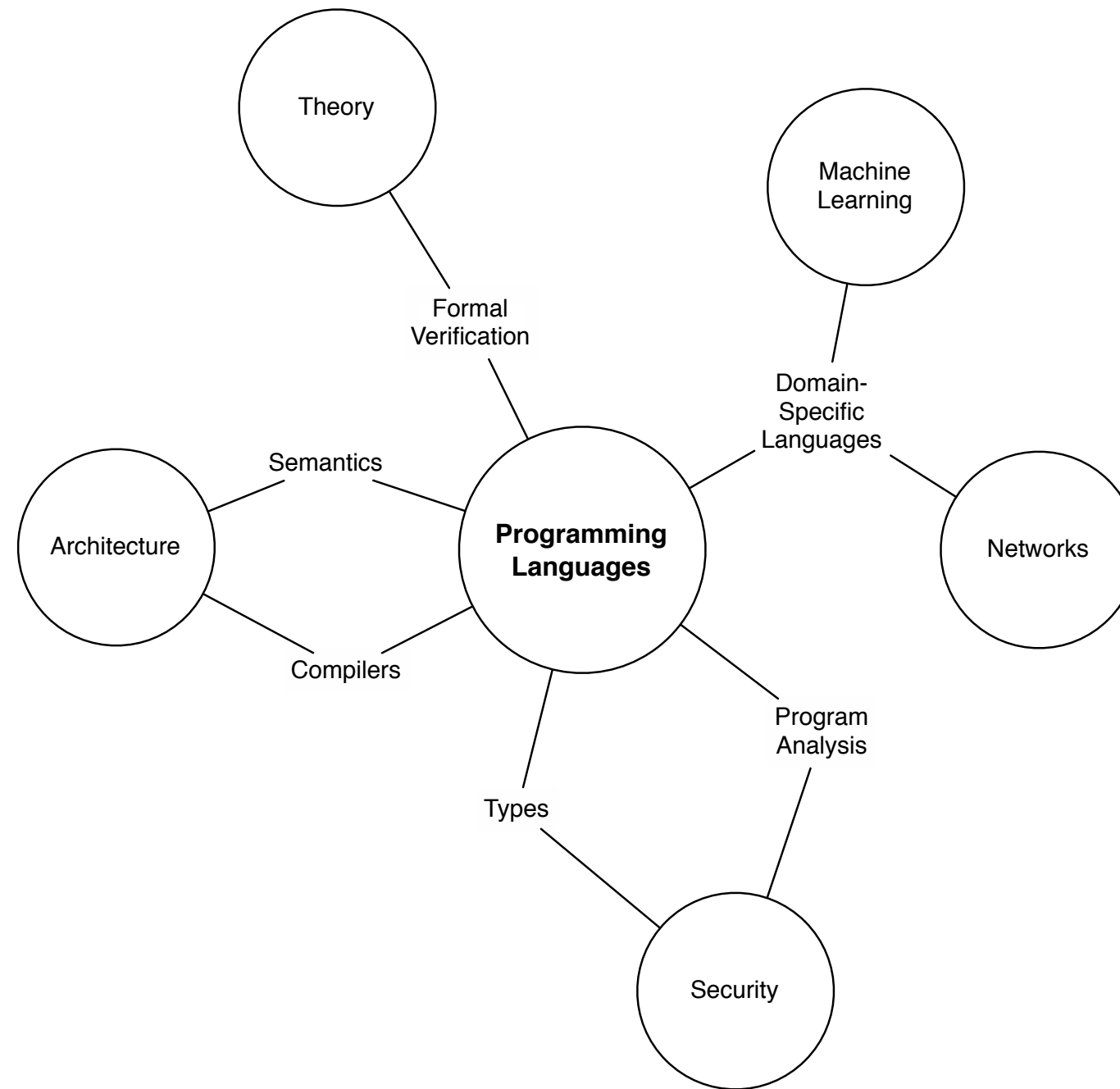
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# Advanced Programming Languages

# Programming languages!



# Programming languages!



# Programming languages in 6110

## Formal foundations:

- Semantics: operational, denotational, axiomatic
- Reasoning and proofs about programs

## Practice & implementation:

- Compilers, optimization, run-time systems
- Static analysis
- Automated verification

# Prerequisites

Math stuff:

- Basic set theory
- Writing rigorous, formal proofs
- Induction

Comfort with functional programming

# Logistics

Schedule, lecture notes, lots of details:

[http://www.cs.cornell.edu/courses/  
cs6110/2017sp/](http://www.cs.cornell.edu/courses/cs6110/2017sp/)

Office hours TBD, to start next week

# Homework

Five two-week-long assignments

Mostly theoretical, some programming

You can (and should!) work with a partner

# Exams

Prelim: take-home exam, just before spring break

Final: plain old exam

# Grading

Problem sets: 30%

Prelim: 30%

Final: 40%

For homework, you have three 24-hour slip days and one dropped score.



# Piazza

Please watch Piazza! Important stuff will be posted there.

Ask (and answer) lots and lots of questions.

**In class**

Respect is paramount

Interrupt early and often with questions