COSE212: Programming Languages

Lecture 16 — Course Review

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Topics Covered

- **Part 1 (Preliminaries):** inductive definition, basics of OCaml programming, recursive and higher-order programming
- **Part 2 (Basic concepts):** syntax, semantics, naming, binding, scoping, environment, interpreters, states, side-effects, store, reference, mutable variables, parameter passing
- **Part 3 (Advanced concepts):** type system, typing rules, type checking, soundness/completeness, type inference, lambda calculus
- **Part 4 (Miscellaneous topics):** compilation, synthesis

Checklist

Have you pick up the following ideas from this course?

- The role of induction in computer science
- The power of higher-order, typed, and recursive programming
- Formally specifying programming languages
- Interpreters (Implementation of programming languages)
- Language concepts: scopes, procedures, states, and types

Final Exam

- 12/14 (Wed) in class
- Coverage: Part 1–4.
- Focus on principles and concepts.

한 학기 수고 많았습니다!